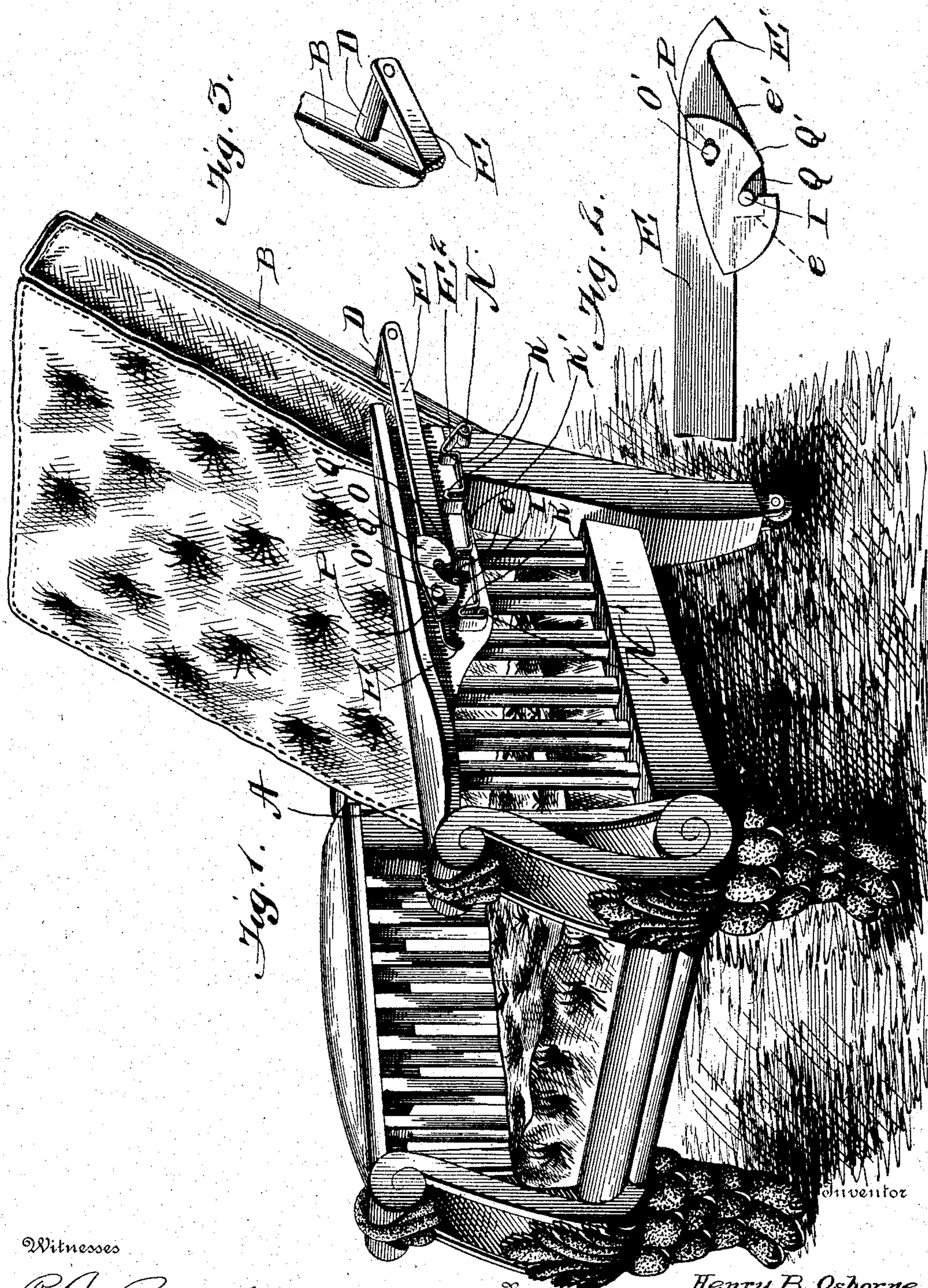


No. 781,152.

PATENTED JAN. 31, 1905.

H. B. OSBORNE.
ADJUSTABLE BACK FOR CHAIRS, &c.
APPLICATION FILED JUNE 4, 1904.



Witnesses

R. A. Boswell.
A. L. Hough.

By

Henry B. Osborne.

Franklin H. Hough
Attorney

UNITED STATES PATENT OFFICE.

HENRY BURWELL OSBORNE, OF DENVER, COLORADO.

ADJUSTABLE BACK FOR CHAIRS, &c.

SPECIFICATION forming part of Letters Patent No. 781,152, dated January 31, 1905.

Application filed June 4, 1904. Serial No. 211,173.

To all whom it may concern:

Be it known that I, HENRY BURWELL OSBORNE, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Adjustable Backs for Chairs, &c.; and I do declare the following to be a full, clear, and exact description of the invention, such as 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.

This invention relates to new and useful improvements in means for adjusting the backs of chairs, lounges, beds, &c.; and the object of the invention is to produce a simple and efficient means whereby the angle at which it is desired the back of the chair or other article of furniture to which the device is applied may be adjusted; and the invention consists in various details of construction and in arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which—

Figure 1 is a perspective view of my invention as applied to a chair. Fig. 2 is a side elevation of the pivotal dog and bar supporting the same. Fig. 3 is a detail view of the connected ends of two of the bars which are fastened to the back.

Reference now being had to the details of the drawings by letter, A designates the chair to which my adjusting apparatus is applied and provided with a back B, pivotally mounted in the usual manner, and E designates a bar also pivotally mounted upon the stud D and has its forward end bent to form a hook E' for a purpose which will be hereinafter described. Said bar E has a shoulder e, which is adapted to engage one or the other of the projections K, rising from the bar K', in order to hold the back of the chair at different angles. Said bar K' is fixed upon pins or screws N and N' at any suitable location, preferably upon the arm or side of the chair, and

an inclined portion e' intermediate the hook E' and the shoulder e is adapted to contact with and ride over the various projections K as the back of the chair is swung from its lowest position to an upright or vertical position. One end of the bar K' has an inclined portion E², against which the inclined surface e' is adapted to contact and up which it rides as the back is swung toward a vertical position. Pivotaly mounted upon a pin O', projecting from the bar E, is a cam member O, having a curved slot Q formed therein adjacent to the cam edge Q'. Said cam member O is provided with an elongated slot P, adapted to allow a sliding movement of the cam as it turns upon its pivot, said movement being limited by the pin O'. A pin I is provided which is mounted upon the bar E adjacent to said shoulder e and which is adapted to be engaged by the slot Q when the cam is at its lowest position, as shown in Fig. 2 of the drawings.

While I have shown and described a single cam and mechanism for adjusting the back of the chair, it will be understood that each side of the chair is equipped with similarly-constructed mechanism.

In operation when it is desired to throw the back from its farthest downward position to an upright or vertical position the inclined edge e' of the bar E will ride over the projections K, and in order to hold the back at its greatest angle, which will be that of its upright position, the shoulder e may engage the projection K which is nearest to the front of the chair, the free end of the bar engaging said projection by gravity while the cam-plate O will be held by the projection out of the path of said projection. When it is desired to throw the back of the chair to its farthest limit rearward, the back of the chair is swung forward slightly sufficient to allow the cam-plate O to fall to the position shown in Fig. 2 by gravity, after which the curved edge thereof will be presented for contact with the series of projections as the back is swung rearward, thus preventing said shoulder e from engagement with the projections. In case it is desired to raise the back of the chair to increase

the angle thereof the back is raised until the shouldered portion *e* rides over one or another of said projections. As the inclined edge *e'* of the bar rides up an inclination the bar will
 5 fall by gravity as the shoulder *e* drops over a projection, and by so doing the cam *O* will be raised and the back will be held at a certain angle. If desired to increase still further the angle at which it is desired to have
 10 the back disposed, the latter may be raised, allowing the shoulder *e* to engage over the next projection, and so on, adjusting the angle of the back by the engagement of the shoulder with the several projections *K*. In case
 15 it is desired to return the back to its farthest downward limit when adjusted at any angle intermediate its limits, the back of the chair is merely drawn forward to allow the cam-plate *O* to fall by gravity into the position
 20 shown in Fig. 2, thereby presenting the rear curved edge of the plate for engagement with a projection which will prevent said shoulder engaging a projection. It will thus be seen that the back of the chair may be easily and
 25 conveniently returned to its rearward limit or raised to its greatest angle by the simple manipulation of the bar and cam-plate in the manner disclosed.

In order to limit the rearward throw of the
 30 back, the hook *E'* catches over the rearmost of the projections *K*, which projection is adjacent to the upper end of the incline *E'*. It will thus be seen that by the provision of an adjusting means embodying the features of
 35 my invention a simple and efficient mechanism is provided whereby the back of a chair may be adjusted at different angles and automatically.

While I have shown and described my device
 40 as applied to a chair for adjusting the back thereof, it will be understood that the invention may be applied to lounges, beds, or other articles of furniture equally as well, and in the application of the device to such vari-
 45 ous articles of furniture the details of construction may be changed, if desired, without in any way departing from the spirit of the invention.

Having thus fully described my invention,
 50 what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a chair having a back hinged thereto, a member secured to each side of the chair and provided with a series of
 55 upwardly-extending projections, a bar pivotally connected to the back and having a shouldered portion adapted to engage said projections, a cam member having a sliding pivotal movement upon said bar, and a curved edge
 60 adapted to ride over said projections as the

back of the chair is swung rearward, as set forth.

2. In combination with a chair and back hinged thereto, a member secured to each side of the chair and provided with upwardly-ex- 65 tending projections, a bar pivotally connected to the back on each side of the chair, and a cam member carried by each of said bars and provided with a sliding pivotal movement, one edge of each cam being slotted, and a pin car- 70 ried by each bar and adapted to engage said slot, as set forth.

3. In combination with a chair and back hinged thereto, a member secured to each side of the chair and provided with upwardly-ex- 75 tending projections, a bar pivotally connected to the back on each side of the chair, and a cam member carried by each of said bars and provided with a sliding pivotal movement, one edge of each cam being slotted, a pin carried 80 by each bar and adapted to engage said slot, and means for limiting the rearward throw of the back, as set forth.

4. In combination with a chair having a back hinged thereto, a member secured to each 85 side of the chair and provided with series of upwardly-extending projections, a bar pivotally connected to the back upon each side of the chair, each bar being provided with a shoul- 90 der adapted to engage said projections, a cam member pivotally mounted to have a slight sliding movement upon each of said bars, a pin carried by each bar and adapted to engage a slot in the cam member, the latter having a 95 rounded or cam edge adapted to ride over said projections as the back is swung rearward, said cam members designed to be tilted as the back is swung toward a vertical or upright position, as set forth.

5. In combination with a chair with back 100 hinged thereto, a member secured to each side of the chair provided with a series of projections, one end of said member having an inclined surface, a bar pivotally connected one 105 upon each side of the back and to the edge thereof, a forward end of each of said bars being bent to form a hook and each provided with a shoulder upon its lower edge, a cam member pivotally mounted upon each bar and having a curved edge adapted to ride over 110 said projections as the back is swung rearward, and a pin carried by each bar adapted to engage a slot in said cam member, as set forth.

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

HENRY BURWELL OSBORNE.

Witnesses:

ALVO H. SAWINS,
 HARRY M. OSBORNE.