(No Model.)

W. J. COWING.

BACK SUPPORT FOR CHAIRS.

No. 363,211. Patented May 17, 1887.

Fig. 1.

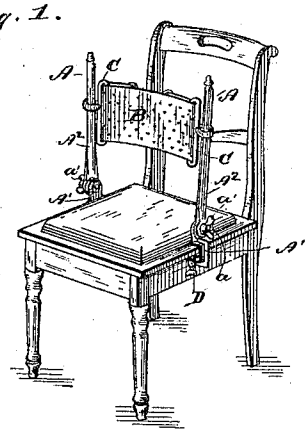


Fig. 2.

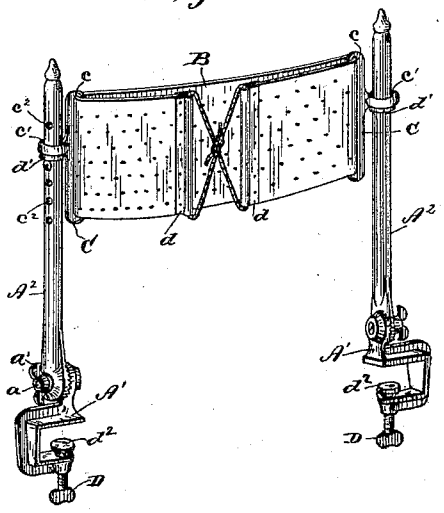


Fig. 3.

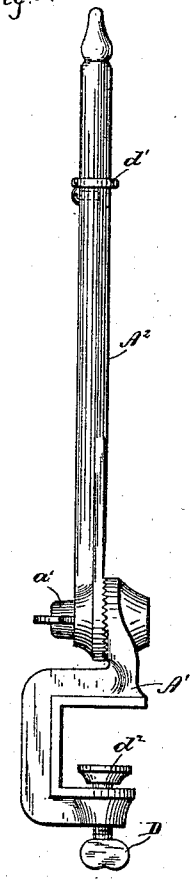
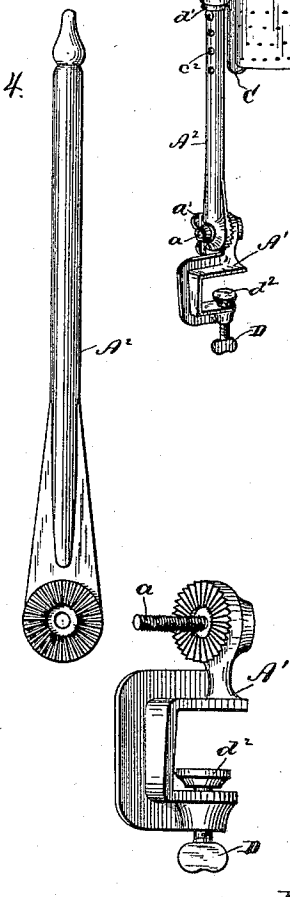


Fig. 4.



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BACK-SUPPORT FOR CHAIRS.

SPECIFICATION forming part of Letters Patent No. 363,211, dated May 17, 1887.

Application filed November 11, 1886. Serial No. 218,565. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. COWING, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Back Supports or Rests for Chairs; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

Heretofore numerous attempts have been made to provide back rests or supports for chairs adapted to be used by persons whose occupations require the maintenance of one position for a long time; but most of these attempts have resulted in the production of devices cumbersome in themselves, and not readily adjusted to suit the requirements of different sized and shaped persons.

My invention, however, has for its object the production of a device that will accomplish the purpose of supporting a person by the application of a rest or support to the "small" of the back, that is simple in itself, cheap, and easily operated, and is in such shape that it can be readily attached to any form of chair in a very few moments by an unskilled person, and as readily detached and applied to another one; and to these ends it consists in the device hereinafter described, the novel features of which will be pointed out in the claims at the end of the specification.

In the drawings, Figure 1 is a perspective view showing the application of my invention to an ordinary chair; Fig. 2, a rear perspective view of the same; Fig. 3, a view of one of the adjustable supporting-standards; Fig. 4, a view of the standards separated, showing the manner of adjusting and securing the back-rest in various positions.

Similar letters of reference in the several figures indicate the same parts.

A A represent two standards clamped on either side of a chair-seat in any suitable manner and adapted to support between them the cross-band or back-support B. The standards are constructed, preferably, in two sections—the lower one, A′, secured to the sides of the chair-seat in any suitable manner, and the upper one, A^2, consisting of the straight portion, pivoted thereto so as to be readily adjusted backward or forward, to move the band B farther backward or forward, as may be desired. The preferable form of connection between the standard-sections I have found to be that shown in Figs. 3 and 4, in which a lug or boss is formed on the lower section, from which projects a bolt or pin, *a*, threaded on its outer end, and provided with a thumb-nut, *a′*; and a similar boss is formed on the lower end of the upper section A′, having a perforation, through which the bolt *a* passes. The proximate faces of the bosses are corrugated or roughened, so that when clamped together they will be prevented from turning by the interlocking projections, although by loosening the nut the angle of the upper section can be adjusted, as will be readily understood.

The band or support B is preferably constructed of a broad band of some elastic material, such as rubber, preferably having the ventilating perforations therein, (although canvas, leather, or similar material may answer as well,) passed through slots *c* in the castings C, which latter are further provided with perforations *c′* at right angles to the long slots to receive the ends of the standards A.

The band B is preferably provided with metallic end pieces, *d*, doubled over, forming the perforation at right angles to the length of the band, and through these pieces is passed a cord, the ends of which are tied or fastened in any suitable manner, so that the slack in the band may be taken up and the latter made tight when desired. Instead of the metal end pieces, as shown, eyelets might be fixed in the ends of the band and ordinary belt-lacings used to fasten them together; or any suitable fastening which will accomplish the purpose might be employed.

In order that the castings C, to which the band is secured, may be held at the required height upon the standards and may be adjusted to any height desired, I provide a series of tapped perforations, c^2, in the outer sides of each of the latter, in one of which is adapted to be inserted a small screw, serving as a support for the eye *c′* of the casting C; and in order that the latter may be allowed a slight rotary motion on the standard, I interpose a washer or ring, *d′*, between the screw and the eye, as will be readily seen by reference to the drawings.

The preferable form of clamping device shown in the drawings consists of a thumb-screw, D, having a swivel-head, d^2, passing through the lower projection of the lower portion of the standard, adapted to clamp the chair-

seat firmly between this head and the upper projection of the section, although any other form of clamping device may be employed, if desired.

The operation of the device will now be readily understood. The device is applied to a chair by first clamping the standards firmly to the seat by the clamps at their lower ends; then adjusting the screws in the standards to the desired height; then placing the washers or rings on them, and finally placing the castings C, secured to the band, over the ends of the standards and upon the rings. The band will then be supported at its ends free from the back of the chair, affording an elastic support for the back of the occupant.

The most advantageous point of application of the band is about the small of the back, and for persons whose occupations require them to maintain an upright position for a long time, as persons operating type-writers or sewing-machines, the invention will be found of special advantage.

The position of the band with reference to the back and front of the chair can be readily adjusted by inclining the standards in either direction on the pivotal bolt *a* and securing them in adjusted position by the thumb-nut thereon, the roughened faces holding them from slipping.

Instead of forming the pivotal bolt integral with the lower or clamping section of the standard, it may be separate and passed through the two lugs, each being then provided with a perforation and the bolt being provided with a squared portion to prevent its turning.

It is obvious that the manner of connecting the ends of the band or belt may be varied greatly, as, instead of passing them through the slots in the castings, the castings may be secured directly to the leather; but I prefer to fasten them to the back, for the reason that the lacings or fastenings cannot come into contact with and inconvenience the occupant of the chair. As stated before, the band, instead of being formed of perforated rubber, as shown, may be constructed of leather or canvas or other material; but in this event I prefer to insert a section of rubber or elastic material in the band to give sufficient elasticity; or the lacings or tying-cord at the back might be formed of elastic material, and these latter could be replaced as often as desired. It is preferable to use an elastic material where contact is made with the occupant, as it adapts itself to the contour of the body, and it therefore affords a better support. The perforations in the band permit a circulation of air and prevent the back of the occupant becoming too warm in summer.

When the back-support is to be applied to chairs having arms that will not permit of the application of the standards to the seat, the band might be secured to said arms in any suitable manner and adjusted forward and backward thereon, as will be readily understood.

The whole device, it will be noted, can be made at a very slight cost, is simple in construction, can be removed from and applied to any chair in a very few moments by an unskilled person, and is of great benefit to those suffering from weak backs.

I claim as my invention—

1. In a back-rest for chairs, the combination, with the standards adapted to be secured to the chair-seat at opposite sides, of the supporting-band supported at opposite ends upon the standards and free at the top and bottom, and means, substantially as described, for adjusting the tension of said band, as set forth.

2. In a back-rest for chairs, the combination, with the pivoted adjustable standards adapted to be secured to the chair-seat on opposite sides, and means substantially as described, for securing said standards in adjusted position, of the supporting-band secured at opposite ends to said standards, as set forth.

3. The combination, with the standards adapted to be secured to the seat of a chair on opposite sides, of an elastic band supported upon said standards at opposite ends and free at the top and bottom, and means, substantially as described, for adjusting the tension of said band, as set forth.

4. The combination, with the standards constructed in two sections, the lower ones provided with devices for clamping them to the chair-seat and the upper sections pivoted thereon on transverse pivots, and the clamping-nuts for securely clamping the two sections together in any desired position, of the supporting-band supported in any suitable manner upon the upper sections of the standards, substantially as described.

5. The combination, with the standards, of the independent castings C, mounted on the standards and free to revolve thereon, and the supporting-band secured to the castings, substantially as described.

6. The combination, with the standards having the series of recesses and the set-screws therein, of the supporting-band and the castings C, having the perforations through which the standard passes, and a slot through which the band is passed for securing it to the castings, substantially as described.

7. The combination, with the standards, of the castings C, mounted thereon and having the two openings at right angles to each other, the one for the passage of the standard and the other for the passage of the band, and the supporting-band adapted to be passed through the opening in the castings, and having the ends located or connected behind the main portion of the band, substantially as described.

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Witnesses:
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