

No. 860,632.

PATENTED JULY 23, 1907.

O. P. BREITHUT.  
CHAIR BACK HINGE.  
APPLICATION FILED SEPT. 5, 1906.

Fig. 1.

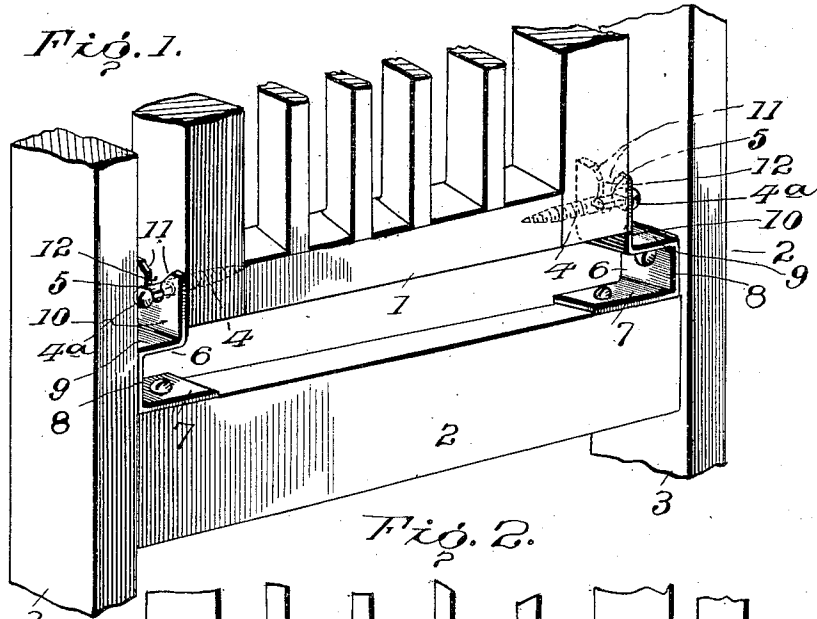


Fig. 2.

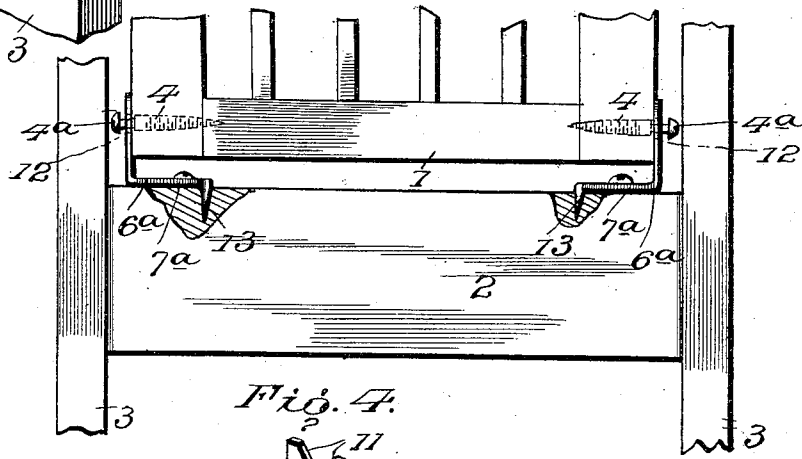


Fig. 4.

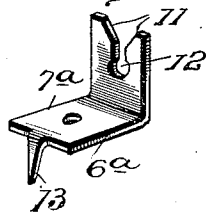


Fig. 3.

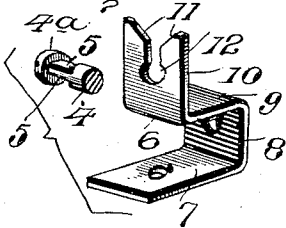
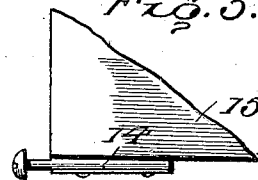


Fig. 5.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## CHAIR-BACK HINGE.

No. 860,632.

Specification of Letters Patent.

Patented July 23, 1907.

Application filed September 5, 1906. Serial No. 333,379.

*To all whom it may concern:*

Be it known that I, OSCAR P. BREITHUT, a citizen of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Chair-Back Hinges, of which the following is a specification.

This invention contemplates certain new and useful improvements in hinges for chair backs and is particularly designed for that class of chairs which are known in the trade as "Morris chairs", embodying a hinged back that is adjustable to various inclinations.

The object of my invention is to provide, for a chair of this type, an improved construction of hinge, the members of which are readily detachable from each other and the employment of which will result in the production of a strong hinged connection which is simple in construction and may be cheaply manufactured and results in economies of manufacture, for instance, in that with my invention, only four screws and in some instances only two screws will be necessary to secure the main supporting part of the hinge to the body of the chair.

A further object of the invention is to provide an improved hinge of this character which will serve as a strong brace between the back rail and legs of the chair, which will not only promote the durability of the chair while being used, but will strengthen the chair as it is being shipped from place to place and subjected to the usual hard usage incidental to transportation.

With these and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts hereinafter more fully described and particularly pointed out in the appended claims.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a rear perspective view of a portion of a "Morris chair" embodying one form of my improved hinge for the back. Fig. 2 is a rear elevation of a chair embodying a modification of one of the hinge members, a portion of the back rail being broken away to better illustrate the construction of said hinge member. Fig. 3 is a detail perspective view of that form of hinge member illustrated in Fig. 1. Fig. 4 is a similar view of that form of the hinge member illustrated in Fig. 2. Fig. 5 is a detail view of one lower corner of the chair back illustrating a modification in the construction of the hinge members intended to be secured directly to the chair.

Corresponding and like parts are referred to in the

following description and indicated in all the views of the drawings by the same reference characters.

Referring to that form of the invention illustrated in Figs. 1 and 3, the numeral 1 designates a chair back, 2 the back rail, and 3 the legs secured to the back rail and extending above the same so as to constitute the rear arm supports.

The back 1 is provided near its lower edge and on its sides with oppositely projecting pintles 4 provided with heads 4<sup>a</sup>. The pintles 4 may be driven into the sides of the back or may be of screw formation, in which latter event, which is the construction illustrated, the heads 4<sup>a</sup> are kerfed for the reception of a screw driver. The shanks of the pintles are round except at two diametrically opposite points where they are flat or plane as indicated at 5 and said plane surfaces extend preferably at right angles to the plane of the back. 6 designates the hinge members designed to coact with the pintles 4. Each of these hinge members 6 comprises a metallic strip or bar embodying a flat base portion adapted to rest upon the upper surface of the back rail 2 at the end thereof, a perpendicular intermediate portion 8 designed to extend upwardly along one of the upward extensions of the legs 3, a returned or inwardly extending intermediate portion 9, and an upwardly extending upper end or extremity 10 which lies in a plane substantially parallel to but spaced from the plane of the legs and which is provided in its upper edge with inwardly extending downward slopes or bevels 11 from which a key hole shaped slot 12 extends.

Each hinge member 6 is provided in its base portion 7 and in its vertical intermediate portion 8 with a screw hole, in which respective screw holes screws are designed to pass so as to rigidly secure said hinge members, by the use of two screws only for each member, to the back rail 2 and to the legs 3. Hence it will be noted that these hinge members serve as corner brackets or braces to strengthen the connection between the back rail and the legs.

The entrance portions of the key hole slots 12 are of a width to just receive the shanks of the pintles 4 through them, when the chair back is so held, namely, in a horizontal plane, that the two flattened portions or plane surfaces 5 of the pintle shanks engage with the walls of the said entrance portions, whereas the inner round portions of said slots are of sufficient diameter to permit the pintles to turn therein. It will thus be seen that the chair back may be readily attached to the hinge members 6 when the back is held in a horizontal plane, and that it may be readily removed from said hinge connection when thus held, while in all other positions, the pivotal connection while a free one in so far as the swinging hinge movement is concerned, is such as to prevent the disconnection of the back from the hinge members. As the upper edges of the hinge

members are beveled inwardly towards the slots 12, it is manifest that the pintles will be directed towards the slots and thus the operation of connecting the back to the hinge members will be expedited.

5 In that form of the invention illustrated in Figs. 2 and 4 the pintles 4 may be employed as in the other construction before referred to, and the hinge members, here designated 6<sup>a</sup> may be provided with the same key hole shaped slots 12 and beveled portions 11 in their upper extremities. Here, however, the hinge members, 6<sup>a</sup>, are formed of substantially right angle metallic strips or bars embodying base portions 7<sup>a</sup> adapted to rest upon the upper surface of the backrail 2, said base portions being provided at their outer edges with one or more tangs 13 which may be driven into the upper surface of the rail so as to securely hold the hinge members in place and permit of the use of but one screw as shown to secure the firm fastening of the hinge member to the back rail. This form of the hinge member is useful particularly where the back of the chair is so narrow as to preclude the employment of the leg bracing hinge members 6, for it is evident that the hinge members 6<sup>a</sup> may be easily secured to the back rail 2 at different distances from the legs, and according to the predetermined width of the chair back.

As illustrated in Fig. 5, instead of having pintles projecting out from the sides of the chair, the pintles there designated 14, may be secured to or formed integrally with plates 15 from which they project, said plates being secured to the bottom edge of the chair back, in which event the chair back will be raised higher than it would be with the employment of the side-projecting pintles 4 heretofore described.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a simple construction of detachable hinge for chair backs, and that I have further provided a hinge of this character which will be durable and in one form in particular, effective as a brace for the chair legs, while all forms of the invention result in economies in the manufacture, as only two screws are necessary with each hinge member of the form illus-

trated in Figs. 1 and 3, while only one screw is necessary for each hinge member in that form illustrated in Figs. 2 and 4.

Furthermore, the pintles may be cheaply manufactured, as they may be ordinary screws with the head portions of their shanks devoid of threads and flattened at diametrically opposite points to provide the plane surfaces necessary for the assembling and disconnecting of the parts.

Having thus described the invention, what is claimed as new is:

1. The combination with a chair, provided with a back rail, legs and a back, of hinge members consisting of angular metallic bars each of which embodies a flat base portion resting upon the top of the back rail at the end thereof, an intermediate perpendicular portion contacting with the leg, and an upwardly extending extremity spaced from the leg provided with an upwardly opening key hole slot, the base portion and perpendicular intermediate portion being fastened to the back rail and leg respectively, and a back provided with oppositely extending pintles provided with shanks, said shanks being formed with flattened surfaces designed to enter the key hole slots, as and for the purpose set forth.

2. As a new article of manufacture, a hinge member for chair backs, comprising an angular bar embodying a flat base portion and intermediate perpendicular portion, the said base portion and intermediate portion each being provided with a screw hole, a returned intermediate portion, and an upwardly extending upper end arranged for the reception of a pintle.

3. The combination with a chair provided with a back rail, legs, and a back, of hinge members consisting of angular metallic bars each of which embodies a flat base portion resting upon the top of the back rail at the end thereof, an intermediate perpendicular portion contacting with the leg, and an upwardly extending extremity spaced from the leg provided with an upwardly opening key hole slot, the base portion and perpendicular intermediate portion being secured to the back rail and leg, respectively, and the back being provided with pintles arranged for reception in the upwardly extending extremities of said hinge members.

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

OSCAR P. BREITHUT. [L. S.]

Witnesses:

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S. TRANSEAU.