(No Model.)

C. KADE.

ROCKING CHAIR ATTACHMENT.

No. 418,571. Patented Dec. 31, 1889.

Fig. 1.

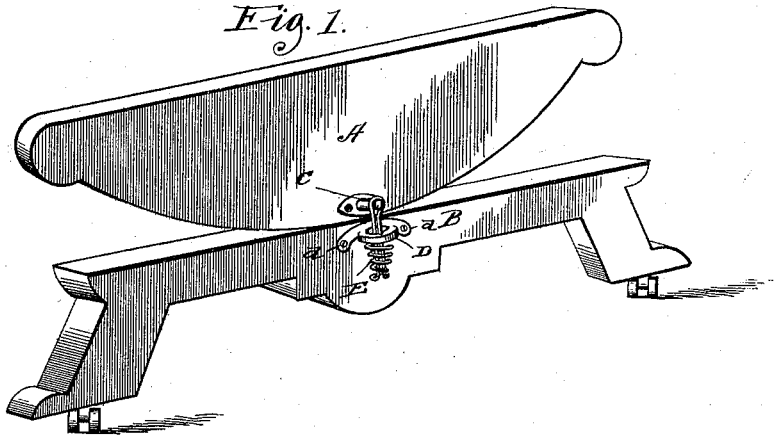


Fig. 2.

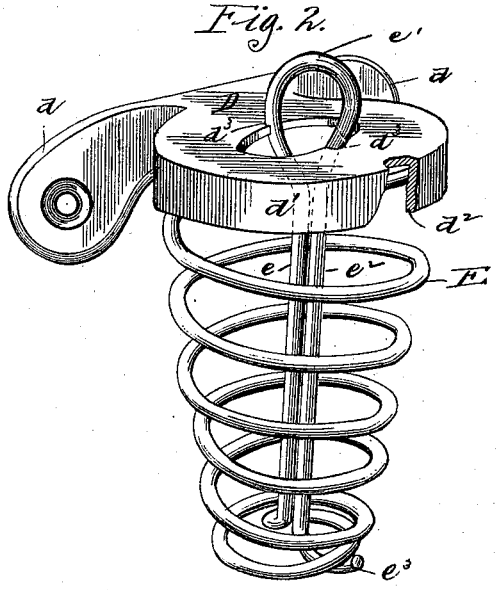
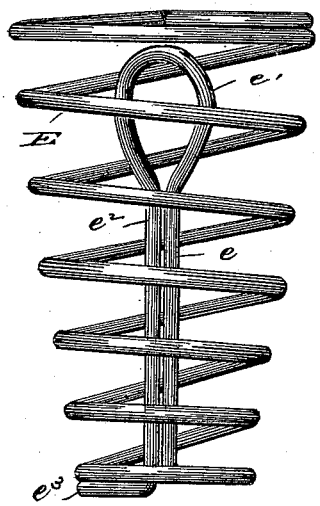


Fig. 3.



Witnesses,
D. F. Mann,
Frederick f. Goodwin

Inventor,
Charles Kade
By, Offield & Towle Attys,

UNITED STATES PATENT OFFICE.

CHARLES KADE, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO WILLIAM KREICKER, OF SAME PLACE.

ROCKING-CHAIR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 418,571, dated December 31, 1889.

Application filed July 28, 1888. Serial No. 281,309. (No model.)

To all whom it may concern:

Be it known that I, CHARLES KADE, of Chicago, Illinois, have invented certain new and useful Improvements in Rocking-Chair Attachments, of which the following is a specification.

My invention relates to attachments whereby to secure the rockers and base of base rocking-chairs, and comprises improvements in both the spring and the brackets of such chairs, as hereinafter described and claimed.

It is the common practice for manufacturers of rocking-chair frames to provide the spring attachment whereby to connect the two parts of the chair together, and usually one or both of the brackets are fitted to the chair, and sometimes the spring is also put in place. This practice has arisen because of the necessity of properly locating the springs so as to balance the movable part of the chair upon the stationary base, and this being a matter requiring knowledge acquired by experience in mounting the chairs, it cannot be safely left to the upholsterer or the furniture-dealer.

The complete attachment of the two parts of the chair, either in the unfinished frames or in a finished condition, renders them so bulky as to cause great inconvenience in packing and shipping, and therefore many attempts have been made to provide means whereby the bracket could be set upon the chair at the place of manufacture and the springs subsequently affixed properly and by unskilled hands. This has not been successfully accomplished hitherto, because most of the methods devised have contemplated the affixing of the springs by the dealer or upholsterer.

My improvements provide convenient means for mounting the brackets on the rocker and base, respectively, while the spring is secured to one of the brackets and locked thereto during shipment or storage, and only slight labor is required to secure it to the other bracket when the chair is set up.

Another feature of my invention relates to the provision of the spring with means for securing it to the brackets. I employ a compression-spring such as is described in my application for Letters Patent, filed June 28, 1887, Serial No. 242,796, in which a rigid bracket-stud is affixed to the rocker, a bracket is secured to the base, adapted to receive one end of a coiled-wire spring, and a rod is secured to the lower end of the spring, passed up through the spring and bracket, and connected to the bracket-stud.

In my present improvement I construct the attaching-rod integral with the spring itself by passing the wire from the end of the lower end coil upwardly through the spring, forming a loop or bend therein toward the top of the coil, and then returning the wire back through the coil and hook the free end of the wire under the last coil, thereby producing a strong well-balanced spring, furnishing a superior means of attaching the spring to the upper bracket, and dispensing with the separated connecting-rod, cap, and nut of my said application.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a chair-frame with my improvements applied thereto. Fig. 2 is a perspective view of the spring and lower bracket, a portion of the latter broken away and showing the method of locking the spring to the bracket. Fig. 3 is a view in side elevation of the spring detached.

In the drawings, A represents a rocker, and B the base.

C is a bracket-stud affixed to the rocker.

D is a bracket, which has lateral screw-flanges *d d*, whereby to secure it to the base. The bracket comprises, in addition to said screw-flanges, the circular casting *d'*, having a flange d^2, to form a seat for the upper end of the spring. The casting *d'* has a central opening, through which the connecting-rod of the spring is passed, preferably oval in form, and of such length in one direction as to permit the passage of the loop of the connecting-rod therethrough, but sufficiently narrow to prevent the passage of said looped end when turned crosswise of the opening. The side walls of this opening are preferably notched, as shown at d^3, so as to form seats or rests for the looped end of the connecting-rod.

E is a helical spring, the upper end of which is seated in the bracket D. From the

lower end coil the wire is turned up through the spring to form one member e of the connecting link or rod, then bent to form a loop e' to engage the bracket-stud C, returned to form the other member e^2 of the connecting link or rod, and finally bent, as at e^3, to hook under the last coil of the spring.

In use the bracket-stud C and bracket D are secured to the rocker and base, respectively, the spring E being also secured in place in the bracket D, and the loop turned, as shown in Fig. 2. If it be desired to ship the chair, it will probably be found expedient to pack the base and upper part separately, and for this purpose my improved attachment answers admirably. The spring, when secured to the bracket, as shown in Fig. 2, cannot be detached except by turning it one-quarter way around. When it is desired to attach the two parts of the chair, the spring is compressed until the loop clears the locking-notches d^3. Then it is turned to bring the plane of the opening of the loop parallel to the face of the rocker, and then the spring is further compressed until the opening of the loop is opposite the end of the stud over which the loop of the wire is caught.

The connecting-rod, when formed integrally with the spring, returned upon itself and hooked under the last coil, furnishes a cheap and effective connecting medium. The strain in rocking comes upon both sides of the spring, and the doubling of the wire renders the connection sufficiently rigid to hold the two parts of the chair in alignment.

I do not claim herein the conical form of spring; nor do I claim, broadly, a helical spring having an integral part that extends from one end of the helix within its coils whereby to connect the parts of the chair.

I claim—

1. The combination, in a rocking-chair attachment, of a bracket adapted to be secured to the base of the chair and to provide a seat for the upper end of the spring, and having an opening interior of its seat of such length as to permit the passage of an attaching-rod therethrough, and of such width as to prevent the passage of the rod, a spring adapted to be seated in said bracket, and a connecting-rod having its upper end adapted to engage a suitable bracket-stud and to lock the spring to the bracket, substantially as described.

2. The combination, in a rocking-chair attachment, of a bracket adapted to be secured to the base of the chair and having a seat on its under side for a coiled-wire spring and a central opening for the passage of a connecting-rod, a spring having its upper end adapted to the seat of the bracket, and a connecting-rod formed integrally with the spring passed through the spring and bracket, looped to engage a suitable stud on the rocker, returned through the bracket and spring, and bent to engage the end coil of the spring, substantially as described.

3. The combination, in a rocking-chair attachment, of a bracket adapted to be secured to the base of the chair and provided on its lower side with a seat for the end of a coiled-wire spring and with a central opening for the passage of a connecting-rod, a helical spring having its broad end adapted to the seat of the bracket, and a rod connected to the other end of the spring, passed upward through the spring and bracket, and adapted to engage a suitable bracket-stud on the rocker, substantially as described.

CHARLES KADE.

Witnesses:
C. C. LINTHICUM,
T. D. BUTLER.