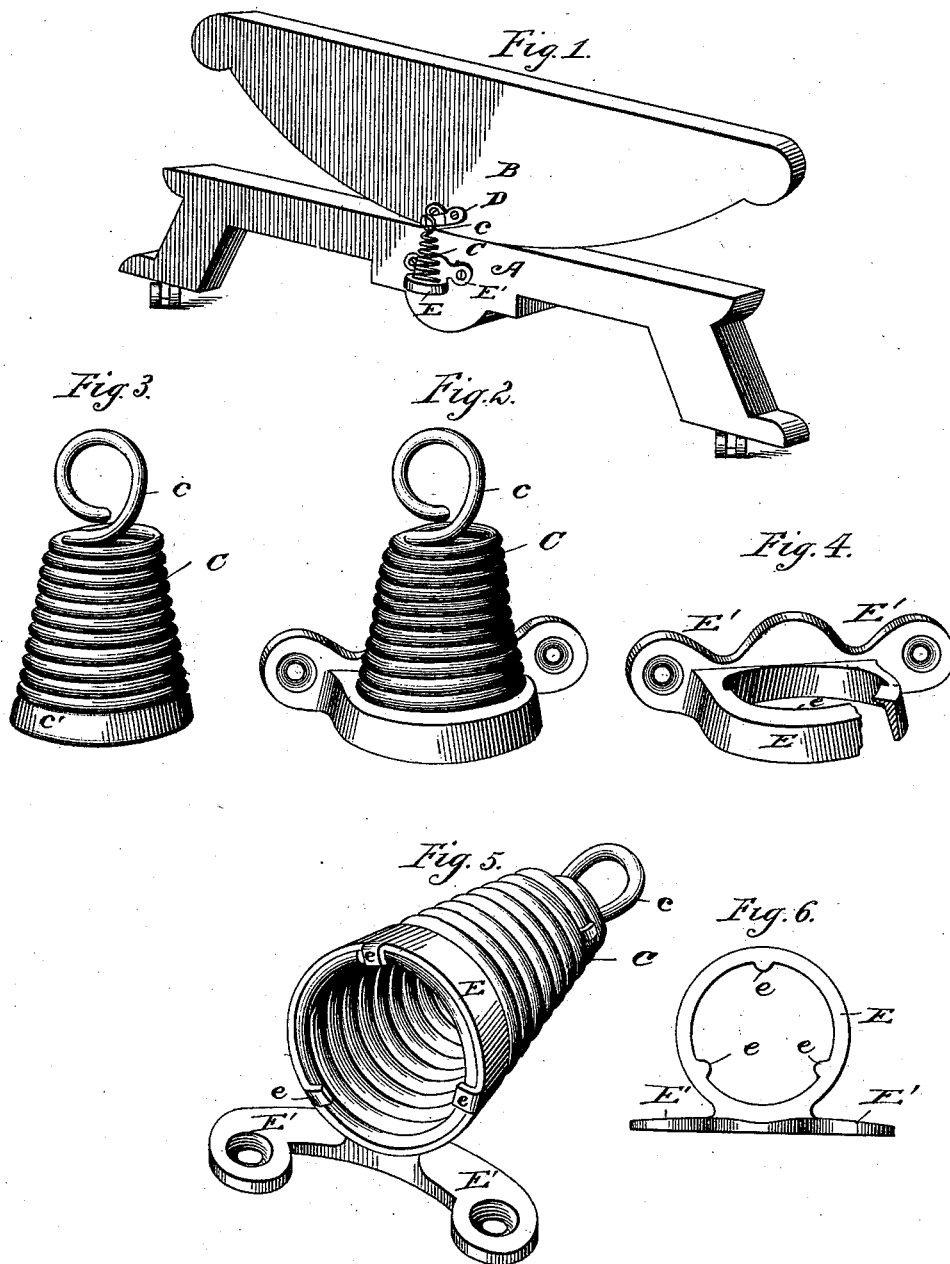


(No Model.)

C. KADE.
ROCKING CHAIR ATTACHMENT.

No. 418,724.

Patented Jan. 7, 1890.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES KADE, OF CHICAGO, ILLINOIS.

ROCKING-CHAIR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 418,724, dated January 7, 1890.

Application filed February 23, 1889. Serial No. 300,934. (No model.)

To all whom it may concern:

Be it known that I, CHARLES KADE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Rocking-Chair Attachments, of which the following is a specification.

My invention relates to attachments for connecting the rockers of base rocking-chairs yieldingly to the base, and comprises improvements in both the springs and brackets of such attachments.

My improvements relate particularly to such a construction as will facilitate the assembling of the parts and their attachment to the chair, and to a construction wherein a conical spring is employed, and in which an attaching-loop, whereby one end of the spring is secured to a stud fixed on one of the parts, is formed integrally with the spring itself. The spring in this construction operates by extension of its coils, and the bracket which secures one of its ends is preferably made with its flange of the same taper as the spring itself, the small end of the spring being inserted through the bracket from its widest side, and the spring being restrained from separation by virtue of its base-coils being of greater diameter than the narrow side of the bracket. I also by preference solder, braze, or otherwise secure two or more of the coils of the large end of the spring together to afford a firmer bearing, and provide the bracket with a retaining flange or lips to prevent the spring from working through the bracket in the direction from which it is inserted therein.

In the drawings, Figure 1 is a perspective view showing the attachment applied to a rocker and base. Fig. 2 is a perspective view of the spring and bracket. Fig. 3 is a similar view of the spring detached, showing the end coils of the spring soldered together. Fig. 4 is a broken perspective view of one form of bracket having an integral inwardly-projecting flange on the interior of its body to engage the spring and prevent its endwise movement in the bracket. Fig. 5 is a perspective view of the spring and bracket, the latter being provided in this instance with lips which are adapted to be bent over the end coil of the spring; and Fig. 6 is a plan

view of a bracket having integral inwardly-projecting retaining-lips.

In the drawings, A represents the base, and B the rocker, of an ordinary platform rocking-chair.

C is a conical spring having an integral attaching-loop *c* at its small end, which is adapted to engage a suitable stud, as D, secured to one of the parts of the chair. To the other part of the chair will be secured a suitable bracket comprising the circular body E, which is preferably tapered on its interior, as clearly shown in the drawings, particularly in Fig. 4, and attaching-flanges E'. The taper of the body E will conform to the taper of the spring, and its shortest diameter will be less than the diameter of the end coils of the spring. The body E will have a flange *e*, which may be formed as shown in Fig. 4, where it appears as a circumferential flange made integral with the circular body E and projecting inwardly from the small end thereof; or the flange may be interrupted, forming lips, as in Fig. 6, or the lips may, as in Fig. 5, be formed on the edge of the body E of malleable metal and bent over the end coils of the spring after it is put in place, as shown in said figure. The spring may have two or more of its end coils soldered or brazed together, as shown at *c'*, Fig. 3.

In use the stud D and the bracket are secured upon the respective parts of the chair. The small end of the spring is then thrust through the bracket until its large end seats itself within the body E. In case the form of bracket shown in Fig. 4 or 6 be used, it will be necessary to twist the spring as its large end comes in contact with the flanges or lips *e*, so as to force the latter between the coils. These flanges or lips need not, however, be arranged with a pitch to correspond with the pitch of the coils, but may lie in a horizontal plane, as shown in the drawings. If the form of bracket shown in Fig. 5 be used, the spring will be forced into its seat in the bracket, and the lips *e* will be bent over the last coil, as shown in Fig. 5. In either case the sole function of these lips or flanges is to prevent the spring from forcing its way out of the bracket in the direction from which it is inserted. I regard all of these forms as within the scope of my invention.

This attachment combines many desirable features. It is strong, simple in its parts and operation, and cheap in construction. The conical form of spring is the best yet devised for this sort of attachment, and I have shown herein adequate means for connecting it, the integral loop being a simple yet efficient method of securing one end, while the bracket shown for securing its other end is in many ways superior to the forms in common use.

I claim—

1. In attachments for base rocking-chairs, &c., the combination, with a conical spring provided at its small end with an integral attaching-loop adapted to engage a bracket-stud to be secured to one of the parts of the chair, of a bracket having a circular body portion tapered on its interior to conform to the taper of the spring, and adapted to retain the large end of the spring thereby and to be secured to the other part of the chair, substantially as described.

2. In an attachment for base rocking-chairs,

&c., the combination, with a conical spring and a bracket device or stud adapted to connect the small end of said spring to one of the parts of the chair or like article, and a bracket having a body portion tapered on its interior to provide a seat for the large end of the spring, and having retaining-flanges adapted to engage the spring to prevent its withdrawal, substantially as described.

3. In an attachment for base rocking-chairs, &c., the combination, with a conical spring and means for securing the small end of the spring to one of the parts of the chair or like article, of a bracket having a body portion tapered on its interior to conform to the taper of the spring, and the latter having two or more of its end coils brazed or soldered together, substantially as and for the purpose described.

CHARLES KADE.

Witnesses:

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