(No Model.)

W. I. BUNKER.

ROCKING CHAIR ATTACHMENT.

No. 405,530. Patented June 18, 1889.

Fig. 1.

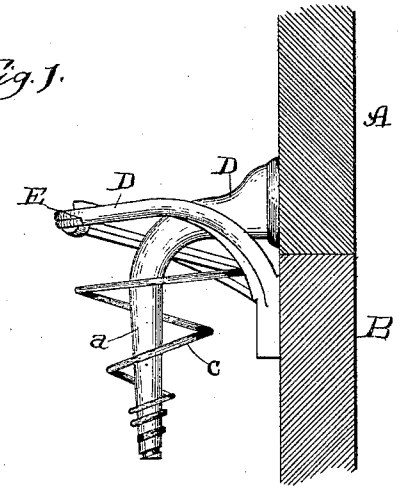
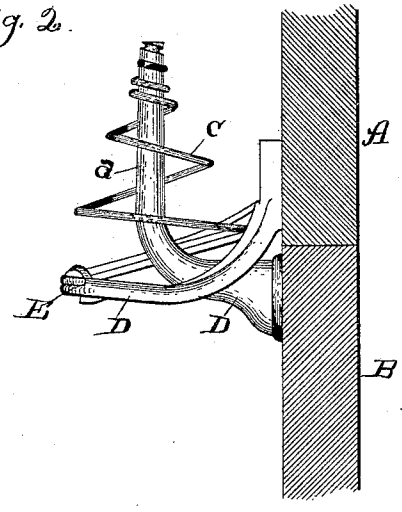


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM I. BUNKER, OF CHICAGO, ILLINOIS.

ROCKING-CHAIR ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 405,530, dated June 18, 1889.

Application filed September 9, 1887. Serial No. 249,270. (No model.)

To all whom it may concern:

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

The object of my invention is to make a simple cheap spring attachment for rocking-chairs; and the invention consists in the features and combinations hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a vertical section showing my improved attachment applied to the rocker and base-rail of a platform rocking-chair with the end of the spring having the smaller diameter below the line of contact between such parts; and Fig. 2 the same, except that the end of the spring having the smaller diameter is above such line of contact.

A is the rocker; B, the base-rail; C, the connecting-spring; D, the brackets, and *d* the extended portion of one of the brackets passing through the body of the spring, and E the portion of the brackets receiving and holding the terminal coil of the spring.

My improved attachment consists of a spiral spring and suitable attaching-brackets, preferably having the characteristics hereinafter mentioned. The spring is of course of suitable dimensions and length to form the connecting medium between the rocker and base-rail, so that, two being used—one at the side of each rocker and base-rail—they will operate to connect and hold together the seat and base parts of the chair. The spring is preferably open-coiled, so as to be readily compressed by the rocking of the chair. The attaching-brackets are adapted to be secured to the ends of the spring and to the rocker and base-rail, preferably in such a way that one end of the spring will be held from points away from its diametrical center and the other from a point substantially in the line of its diametrical center. One of the brackets may be provided with an extended portion adapted to be passed up or down through the coils or body of the spring, and each of them should have means for securing it to one of the terminal coils of the spring. As shown, these means consist of grooves or channels to receive and hold the terminal coil of the spring; but of course other ways of securing the spring and bracket together may be used.

In using the particular form of brackets shown the bracket having the extended portion may be secured to either the rocker or base-rail, and its extended portion will then reach up or down and form a firm fastening or attachment for the opposite end of the spring—that is, for the end of the spring below the line of contact between the rocker and base-rail when the bracket is secured to the rocker, and for the end of the spring above such line of contact when the bracket is secured to the base-rail. The other bracket, which may also be secured to either the rocker or base-rail, extends, preferably, outwardly and upwardly or downwardly to the extent necessary to enable it to be attached to the other end of the spring—that is, the end to which the extended portion of the bracket above described is not attached. As in the other case, this bracket may be connected with the spring in any suitable way—as, for instance, by suitable grooves or channels to receive and hold its terminal coil. Of course the smaller end of the spring may be either above or below the line of contact between the rocker and base-rail, as desired. The brackets being properly attached to the springs and to the rockers and base-rails of the chair—one spring and set of brackets at the side of each rocker and base-rail—the whole attachment serves to firmly and securely connect and hold the rocking and base parts of the chair together. I prefer to fasten the brackets and springs together before applying them to the chair; but this is not necessary.

The advantages of my invention are that it forms a very simple, efficient, and economical attachment. When the spring is tapering, its larger coils are more elastic or yielding than its smaller ones, and this makes the first rocking of the chair very easy, while the smaller coils, being less elastic or yielding than the larger ones, cause greater resistance at the extreme rocking movement of the chair and its rocking to stop gradually. In other words, the larger coils have a material effect in the

first rocking of the chair and the smaller ones a material effect afterward. This form of spring also requires less wire in its manufacture than other forms in common use. By securing one end of the spring at points away from its diametrical center and the other at a point in the line of its diametrical center a broad base or support is furnished for the body of the spring, and this causes a different action from that obtained by other attachments now in use, particularly in that it gives a very free movement to the end of the spring having the central attachment. It should be understood, however, that while I regard both this form of spring and this manner of attachment as novel and important features, I do not wish to be understood as limiting myself to an attachment in which a helical spring is necessarily used; nor do I intend to limit myself to the particular form of spring or bracket shown, or to other minor features.

I claim—

1. In combination with the rocker and base-rail of a platform rocking-chair, a coiled spring and two attaching-brackets securing the ends of the spring to the rocker and base-rail, respectively, one of the brackets securing one end of the spring at points away from its diametrical center and the other bracket securing the other end of the spring at a point substantially in the line of its diametrical center, substantially as described.

2. In combination with the rocker and base-rail of a platform rocking-chair, a helical spring and two attaching-brackets securing the ends of the spring to the rocker and base-rail, respectively, one of the brackets securing the larger end of the spring at points away from its diametrical center and the other bracket securing the smaller end of the spring at a point substantially in the line of its diametrical center, substantially as described.

3. In combination with the rocker and base-rail of a platform rocking-chair, a helical spring and two attaching-brackets, one of the brackets securing the broader end of the spring at points away from its diametrical center and the other bracket having an extended portion passing through the body of the spring, attached to its tapering end, and securing the same from a point substantially in the line of its diametrical center, substantially as described.

4. A bracket for rocking-chair attachments, comprising a plate to be secured to the rocker or base-rail, an extended portion to pass through the body of the coils, and means for securing the end of the extended portion to one of the terminal coils of the spring, substantially as described.

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