

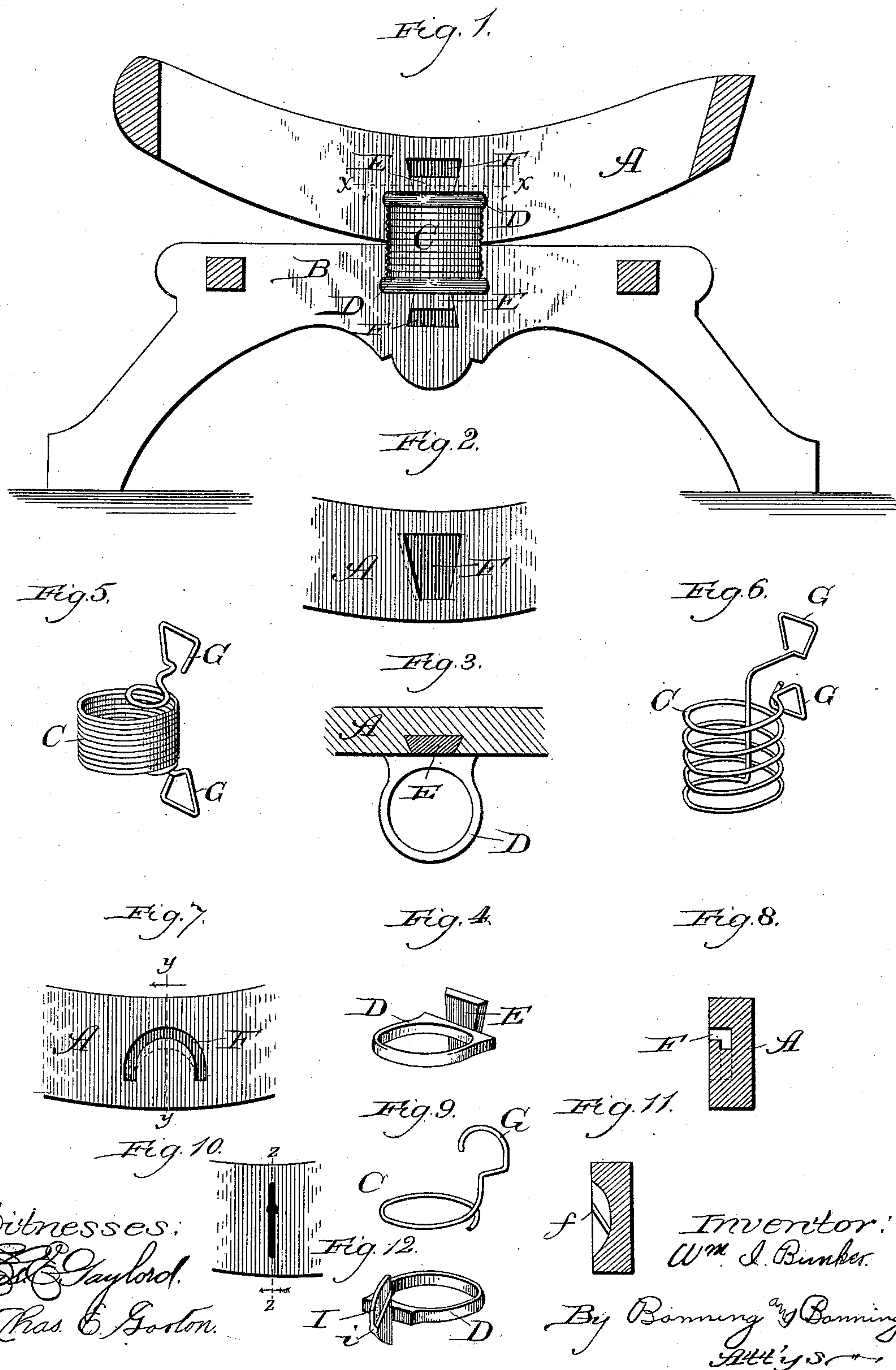
(No Model.)

W. I. BUNKER.

SPRING ATTACHMENT FOR ROCKING CHAIRS.

No. 401,684.

Patented Apr. 16, 1889.



UNITED STATES PATENT OFFICE.

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SPRING ATTACHMENT FOR ROCKING-CHAIRS.

SPECIFICATION forming part of Letters Patent No. 401,684, dated April 16, 1889.

Application filed March 12, 1888. Serial No. 267,051. (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, Illinois, have invented certain new and useful Improvements in Spring Attachments for Rocking-Chairs, of which the following is a specification.

The object of my invention is to attach the base and rocker of a chair together in a simple and economical manner; and my invention consists in the features and details of construction hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of a rocker and base-rail of a rocking-chair, showing a spring and brackets in place. Fig. 2 is a side elevation of a portion of a rocker, showing a socket in which the bracket is inserted. Fig. 3 is a plan view of the rocker and bracket taken in the line xx of Fig. 1, looking in the direction of the arrows. Fig. 4 is a perspective view of the bracket before it is attached to the chair. Figs. 5 and 6 are views of springs adapted to be connected to the rocker and base-rail without the use of the brackets. Fig. 7 is a modification of the form of recess in the rocker or base-rail. Fig. 8 is a transverse vertical section taken in the line yy of Fig. 7, looking in the direction of the arrow. Fig. 9 is a view of a portion of a spring adapted to be attached to the rocker shown in Figs. 7 and 8. Fig. 10 is another modification of the form of recess in the rocker for the bracket. Fig. 11 is a transverse vertical section taken in the line zz of Fig. 10, looking in the direction of the arrow; and Fig. 12 is a form of bracket for use with the rocker shown in Figs. 10 and 11.

In the drawings, A is the rocker; B, the base-rail; C, the spring; D, the bracket; E, the portion of the bracket by which the attachment to the rocker or base-rail is effected, and F the recess in the rocker or base-rail to effect the attachment.

In making my improved spring attachment for rocking-chairs, I provide the rocker and base-rail with a recess cut into the wood through which the attachment is effected. The recess to permit this direct attachment may be of various forms, and I have illustrated various forms of recesses in the drawings.

The form of recess which I prefer is that shown in Figs. 1, 2, and 3, and I shall describe my improvements more particularly with reference to this form of recess, though I wish it to be distinctly understood that I do not exclude the use of other forms, as I consider that my invention is more than simply devising a particular form of recess in the rocker or base-rail of the chair. As shown in Figs. 1, 2, and 3, the recess is in the form of a dovetail that is wider at the top than at the bottom, and after the wood has been cut and the recess sunk to a sufficient depth the sides of the recess flare out, as shown in Fig. 3, so that the back of the recess will be broader than the front surface portion. I make one recess in the rocker and one recess in the base-rail, with their smaller ends toward each other, as shown in Fig. 1. I then make or cast a bracket to receive the spring, which is provided with a portion adapted to enter the dovetailed recess in the wood at its widest portion and be held therein when it has been moved toward the narrower portion of the recess. This attaching portion is shown in Fig. 4, and its construction will be readily understood without more minute description.

When the rocker and base-rail have each been provided with their dovetailed recesses, I take two brackets, each provided with its attaching portion and attach them to a spring. After connecting the spring and brackets together I draw the coils of the spring apart, so as to insert the attaching portions of the brackets into the recesses in the rocker and base-rail at their widest point. The tension of the spring will draw the attaching portions of the brackets toward the narrow ends of the recesses in the wood, as shown in Fig. 1, so that they will be securely and firmly held in place until the spring has been stretched or drawn out by the application of positive force. In this way the attachment of the brackets to the rocker and base-rail is effected without the use of screws, nails, or other similar means, and the disengagement of the parts may be effected by disconnecting the brackets from the rocker and base-rail without the removal of screws, nails, or other attaching devices. In this way the portions of the chair can be easily connected when the frame is put to-

gether for use or disconnected for the purpose of shipment or storage.

It is obvious that the connection of the rocker and base-rail can be secured by providing the ends of the coiled springs with parts corresponding to the attaching portions E of the brackets. To illustrate this, I have shown two coiled springs in Figs. 5 and 6, which have the ends of the wire constituting the coils bent into a form adapted to be inserted into the dovetailed recesses of the rocker and base-rail. I have designated these portions of the springs by the letter G. When the springs are thus provided with ends thus adapted to enter the dovetailed portions in the wood of the chair, no additional bracket is required; but the connection between the rocker and base-rail is effected and secured by the springs alone.

In Figs. 7 and 8 I have shown another form of recess in the wood of the chair. This particular form is represented as semicircular and is sunk at its inner portion, so as to afford means for retaining the end of the wire when inserted. This will be readily understood by reference to Fig. 8; and in Fig. 9 I have shown a portion of a coiled spring with its ends bent into proper form to be inserted into this modification of the recess.

In Figs. 10 and 11 I have shown still another form of recess, which consists of a narrow slot cut into the wood, with a notched portion, *f*, running into the wood at an angle, as shown in Fig. 11; and in Fig. 12 I have shown a bracket with an attaching piece, *I*, with an enlarged rib or portion, *i*, adapted to be inserted into the recess shown in Figs. 10 and 11. When it is inserted and pushed down into place, it will be firmly and securely held by the tension of the spring until drawn upward and out by positive force.

In all of these cases I have shown an attachment of the spring to the rocker and base-rail of a chair by means of a recess cut directly into the wood of the rocker and base-rail, so that no screws, nails, or other similar devices are necessarily required to attach the springs, whether provided with brackets or not, to the rocker and base-rail of the chair. I have shown these recesses in both the rocker and base-rail; but it is obvious that a bracket could be secured to one end of the coiled spring and screwed or otherwise attached to the rocker or base-rail, and the other end provided with a bracket adapted to be secured in a recess cut into the wood, as I have above described. In other words, it is obvious that if parties desire they can provide but one member of the chair—either the rocker or the base-rail—with a recess cut into the wood, and rely upon the ordinary means now in use for effecting the attachment to the other mem-

ber. When, therefore, I speak of these recesses in the rocker and base-rail and use the word in the plural number either in the specification or claims, I desire it to be understood that I have reference to one or more recesses, and am not limited to the plural number in forming the connection. Nor is it necessary that the recess should be cut into the side of the rocker or base-rail, as it may be cut into the top of the rocker or in the bottom of the base-rail, and the wire of the spring or the casting, where one is used, extended out in the proper form and to the proper distance to be engaged therewith. Nor is it necessary that the recesses be cut into the wood of the rocker or base-rail in those cases where cross-bars are used extending across from one rocker to the other, as in such cases the recesses could be cut into such cross-bars.

What I regard as new, and desire to secure by Letters Patent, is—

1. In a platform rocking-chair, recessed rockers and base-rails, in combination with coiled-spring attachments arranged vertically at the side of the rockers and base-rails at or near the center of oscillation of the chair-seat and provided with projections or attaching portions extending from their ends sidewise, said projections or attaching portions being arranged to enter the recesses in the rockers and base-rails when drawn apart against the drawing tension of the spring and to be held and locked in such recesses when released, substantially as described.

2. In a platform rocking-chair, a rocker and base-rail, one of which is provided with a recess, in combination with a coiled-spring attachment arranged vertically at or near the center of oscillation of the chair-seat, and provided with a projection or attaching portion extending from its end sidewise, said projection or attaching portion being arranged to enter the recess in the recessed rocker or base-rail when drawn out against the drawing tension of the spring and to be held and locked in such recess when released, substantially as described.

3. In a platform rocking-chair, the combination of a base-rail having a recess in its side extending partially through the rail, a rocker having a recess in its side extending partially through the rocker, and a coiled spring having its ends formed into shape to fit the recesses in the rocker and base-rail and connecting them together by engagement therewith at the side of the spring, substantially as described.

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Witnesses:

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G. P. LINDSLEY.