

(No Model.)

J. W. BROWN.
PLATFORM ROCKING CHAIR.

No. 413,273.

Patented Oct. 22, 1889.

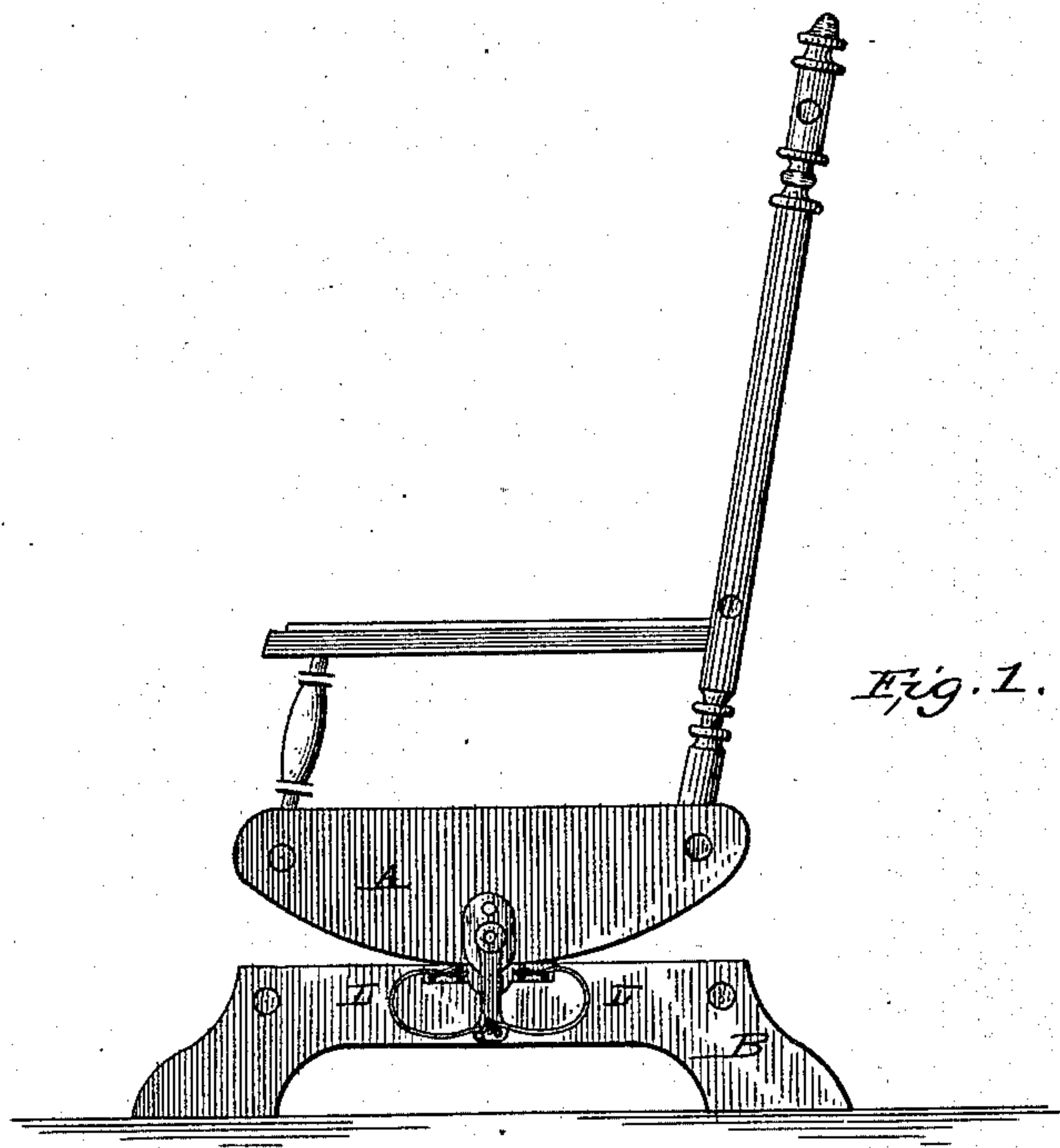


Fig. 1.

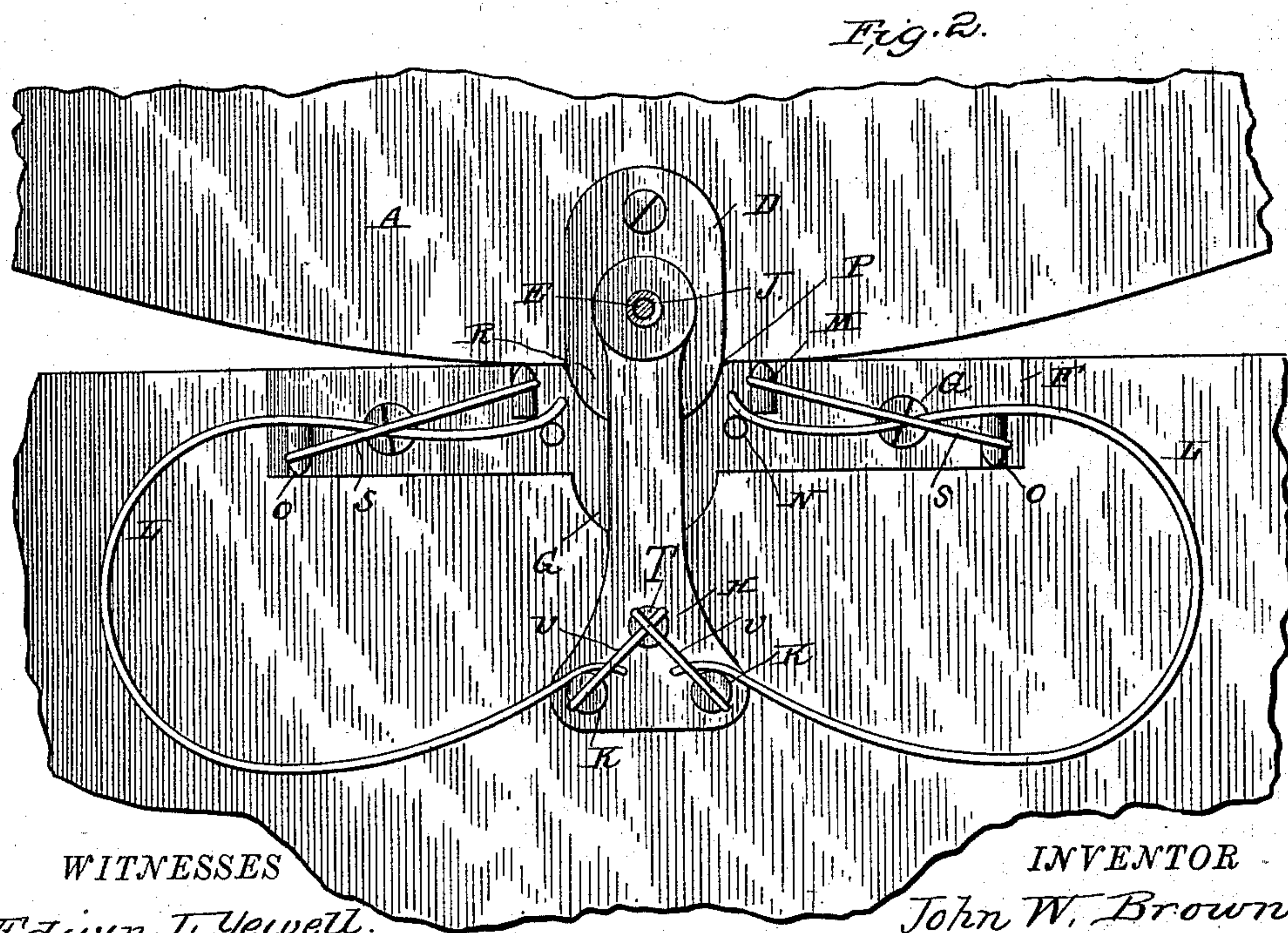


Fig. 2.

WITNESSES
Edwin I. Yewell.
Chas Helm.

INVENTOR
John W. Brown
By John G. Manahan
his Attorney

UNITED STATES PATENT OFFICE.

JOHN W. BROWN, OF ROCK FALLS, ILLINOIS.

PLATFORM ROCKING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 413,273, dated October 22, 1889.

Application filed March 29, 1888. Serial No. 268,755. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. BROWN, a citizen of the United States, residing at Rock Falls, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Platform Rocking-Chairs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention has reference to platform rocking-chairs, and pertains more especially to the spring which on each side of the chair flexibly connects the same to the platform. As in the oscillation of the chair upon its platform the chair constantly changes its relation to said platform, and as the central point in the base of the chair moves in arcs of circles of more or less curvature, it has been difficult to provide a spring which should entirely meet all the requirements of the situation. Vertically-coiled springs have been much used; but as the strain thereon, by reason of the oscillatory movement of the chair, is not in a direct line of the coil, the spring is not in condition to furnish its normal elasticity. In fact, the action is obliquely across the spring rather than in line therewith. In my invention I use two leaf-springs on each side of the chair, and the action of each spring is at all times simply a matter of compression and expansion in line with the longer axis of said spring.

As my invention is equally applicable to all platform rockers and pertains solely to the seating of the chair upon its platform, I do not deem it necessary to show or describe any more of the chair than will render intelligible the location and operation of my invention.

In the drawings, Figure 1 is a partial side elevation of the platform rocking-chair provided with my invention. Fig. 2 is an enlarged detail of the springs and spring-plate attachments.

A is the rocker or base of the chair proper, having its lower edge in the usual convex

form, and thus suited to oscillate upon the platform B.

D is a metallic plate suitably attached to the outside of the rocker A, and provided externally slightly in front of the longitudinal center of the latter, near its lower end, with a horizontal outwardly-extending stud E integral with said plate D. The outer face of the rocker A and the platform B are in the same vertical plane, and a plate F is centrally attached to the outside of the platform B, with its upper edge coterminous with the upper edge of said platform. The plate F is suitably fastened against the platform B by means of screws G. A pendant or arm H is provided near its upper end with the round hole or opening J, adapted to fit loosely over the post E on the plate D, and depending therefrom is passed down outside of and contiguous to the plate F and projected a short distance below the latter plate. The pendant H is provided externally near its lower end with the horizontal posts or lugs K K, each of which is adapted to engage and hold one end of the respective springs L.

On the exterior of the plate F, a short distance from the sides of the arm H, are formed outwardly-projecting studs M N, between which the upper ends of the respective springs L are inserted. Like lugs O are formed on the exterior of the plate F, near the outer ends of the latter, and constitute the central or fulcrum bearings, respectively, of the springs L. The plate-springs L are inserted edgewise between the lugs M and N and against the plate F and pendant H, and therefore the action of the spring is similar to that of the ordinary elliptic buggy-spring. In the under edge of the plate F there is centrally formed a concave recess P, and the lower end of the plate D has a circular projection R extending below the surface of the rocker A and adapted to fit into the recess P. These latter features serve to center the chair upon the platform B and prevent said chair from slipping backward or forward at either side, and thus produce an abnormal action upon the spring L. As the rocker A is oscillated upon the platform B the pendant H rises centrally to permit such oscillation, and in such rising exerts a compressing effect

upon the springs L; but when such oscillation has reached the end of its arc in one direction the compression of the springs L L tends by their expansion to return the chair to its normal position; and when the arc is continued beyond the perpendicular the compression is again exerted upon the springs L by the upward lifting of the pendant H, and said springs serve, as aforesaid, to return the chair.

The lugs on the plate F, as well as the plate itself, will be formed of malleable iron or some other yielding metal, and in the crest or outer end of the lugs O and M will be formed a transverse slot, in which will be embedded a wire S, which, crossing the spring L diagonally, will hold the latter from escaping from the lugs M and O. Near the lower end of the pendant H is formed a short lug T, from which to the posts K, respectively, are in like manner extended short wires V, which pass on the outside of the lower end of the springs L and hold the latter against slipping from the lugs K. It will be observed that there is no interattachment of the rocker A and platform B, save that through the medium of the pendant H, which latter will rise and fall flexibly, being operated upon by the springs L as the rocker A is oscillated backward and forward.

One advantage of my invention is that the springs L are utilized in their best position—that is, in a plane perpendicular to their greatest transverse diameter—and with nothing of the torsional character required of such

springs. Therefore the latter can be readily adapted to size and strength for the purposes required, and are not likely to become broken or displaced from usage. Again, the operation of my spring is entirely noiseless.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

In a platform rocking-chair, the combination of the rocker A, the plate D, attached thereto and provided with projection R and stud E, the platform B, the plate F, attached to said platform and provided with recess P and lugs M, N, and O, the pendant H, provided with the spring-supporting lugs K K and lug T, and with opening J, adapted to be loosely collared on stud E, springs L L, having respectively their upper ends inserted between the lugs M and N, their central portions curved outwardly parallel with said rocker, and their lower ends supported on said lugs K K, and the wires S and V, respectively passed over the outside of the springs L L and their extremities suitably fastened in the outer ends of the lugs O and M and K and T to hold said springs in their aforesaid position, substantially as shown, and for the purpose described.

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

JOHN W. BROWN.

Witnesses:

ADDA E. WARD,

JOHN G. MANAHAN.