(No Model.)

S. KONZ.

SPRING CHAIR BOTTOM.

No. 486,046. Patented Nov. 8, 1892.

Fig. 1.

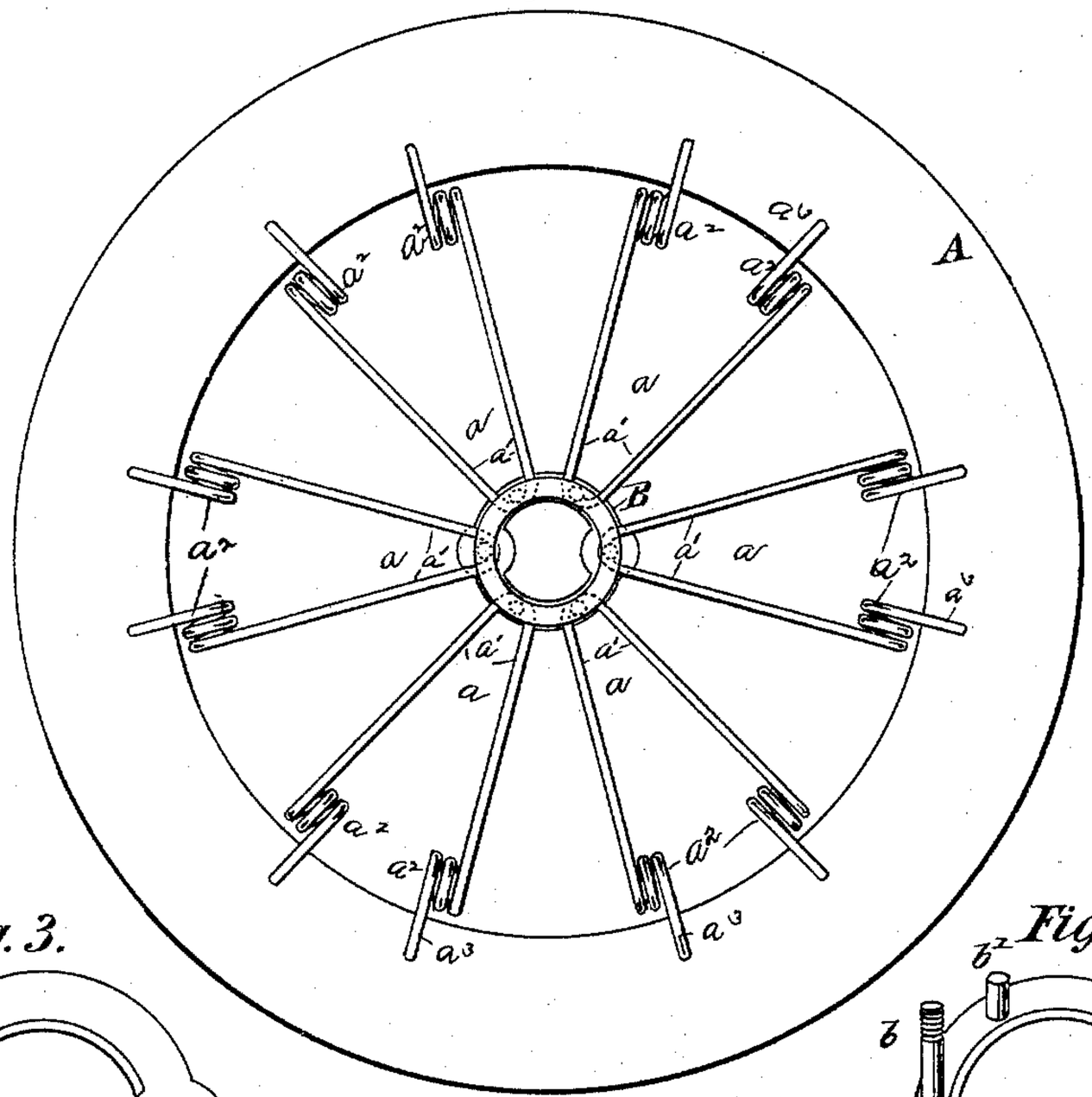


Fig. 3.

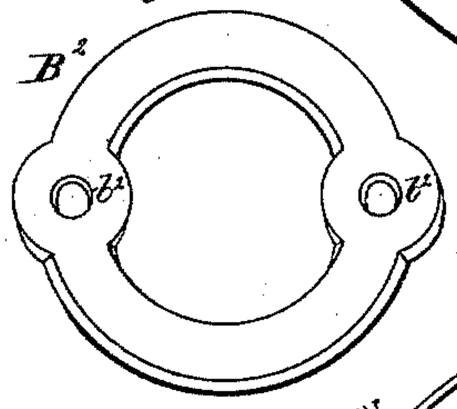


Fig. 2.

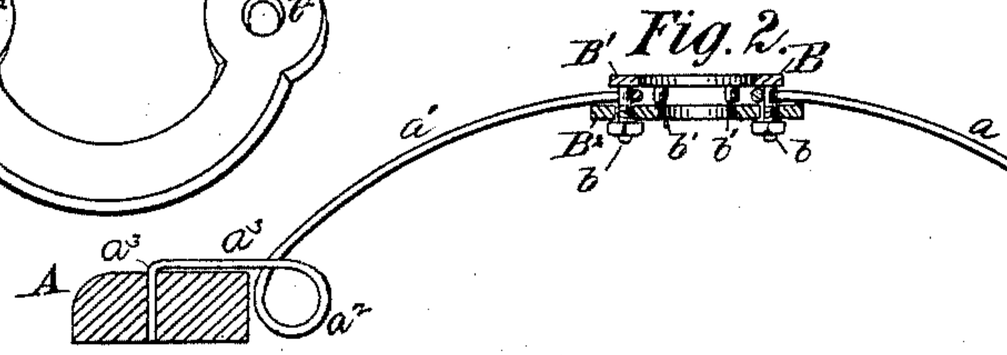
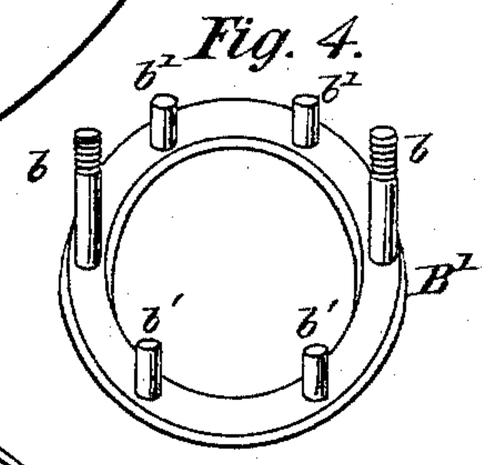


Fig. 4.



Witnesses
Frank Pardow,
Thos. R. Sinton

Sebastian Konz Inventor

By his Attorney
R. M. Kelly

UNITED STATES PATENT OFFICE.

SEBASTIAN KONZ, OF LOUISVILLE, KENTUCKY.

SPRING CHAIR-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 486,046, dated November 8, 1892.

Application filed April 13, 1892. Serial No. 428,956. (No model.)

To all whom it may concern:

Be it known that I, SEBASTIAN KONZ, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Spring Chair-Bottoms; 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.

The object of my invention is to provide a spring chair-bottom which will be of durable and simple construction and of great flexibility; and the invention consists in certain peculiarities in the construction, arrangement, and combination of the several parts, substantially as hereinafter described, and particularly pointed out in the subjoined claim.

Reference is made to the accompanying drawings, in which Figure 1 is a top view of a spring-bottom for chairs embodying my invention. Fig. 2 is a vertical sectional view of the same, the section being taken on a diametrical line. Fig. 3 is a detail of the bottom piece of my central coupling. Fig. 4 is a bottom detail view of the top piece of said coupling.

Similar letters refer to similar parts throughout the several drawings.

In the drawings, A represents the circular frame of a chair-bottom.

a a a represent the springs, and B represents the coupling for holding the springs in the center of the chair-bottom.

The construction of the springs used in my spring chair-bottom may be described as follows: A piece of strong spring-wire of length proportioned to the size of the bottom is bent in the middle and the two arms a' folded till they form an angle of about thirty degrees. A double coil a^2 is then formed near the fore end of each arm, so that the spirals shall be between the two arms a', and the fore ends of the wire are then extended outwardly at a tangent to the top of the last coil and parallel to the arm to which they respectively belong for a suitable distance, and are then bent at right angles, forming the bent extremities a^3, adapted to engage the frame A. The two arms a' inward from the coils are then curved equally upward from the coils a^2 toward the middle fold. The central coupling B is formed of two flat ring-plates of the same size B′ and B^2. The bottom ring B^2 has two vertical holes b^2 through it at points diametrically opposite to each other. The top ring B′ has two posts b of equal height projecting perpendicularly from its surface at diametrically-opposite points, screw-threaded at their lower ends, and adapted to pass through the bottom plate B^2 and receive a screw-tap, and four lower posts b' of equal height similarly projecting. These posts are at equal distances apart. When the posts b are passed through the holes b^2 and the screw-tap fastened, the bottom ring is brought against the bottom of the posts b', which serve to keep the two rings apart, for a purpose which will be referred to hereinafter.

The number of the posts b' with the two longer posts b correspond to the number of double springs used in my chair-bottom.

In putting my spring-bottom together the fore ends of the double springs a, above described, are driven into the frame A at such distance from its inner edge as to bring the coils on each arm just within the said inner edge. The springs are fastened to the frame at equal distances apart. The arms a' of the springs then project curvingly upward toward the center of the frame and are coupled together by passing one of the posts b or b' of the top ring B′ of the central coupling through each fold from the top side and then adjusting the bottom ring B^2, so that the screw-threaded posts b of the top ring will pass through the holes b^2 in the bottom ring sufficiently to engage a tap, which is then screwed home. The posts b' will keep the rings so far apart that the loops in the springs will have free play between them. The springs are thus coupled in the center and the spring-bottom is complete. When a weight is imposed on a spring-bottom so constructed, the folded ends of the spring are moved toward the center of the coupling as the springs are depressed by the weight, and when the weight is withdrawn they spring back to their place against the posts of the coupling. The springs so constructed and centrally coupled make a very strong and elastic bottom. It will of course be understood that this spring-bottom

is designed to be used in connection with an upholstered seating portion, which is omitted in the drawings for the purpose of better illustrating the springs.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a chair-bottom, the combination, with a central coupling composed of two members, one of which has an annular series of posts projecting from its under side, two oppositely-arranged posts of said series being longer than the other posts and provided with screw-threads and the other member of the coupling being provided with two oppositely-arranged apertures to receive said longer posts, and nuts on the longer posts to secure the members of the coupling together, of an outer frame and a series of springs, each bent to form a loop embracing one of the posts of the series, the free ends of said springs being secured to said outer frame, substantially as set forth.

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

SEBASTIAN KONZ.

Witnesses:
CHARLES WRIGHT,
JOHN W. NEVILLE.