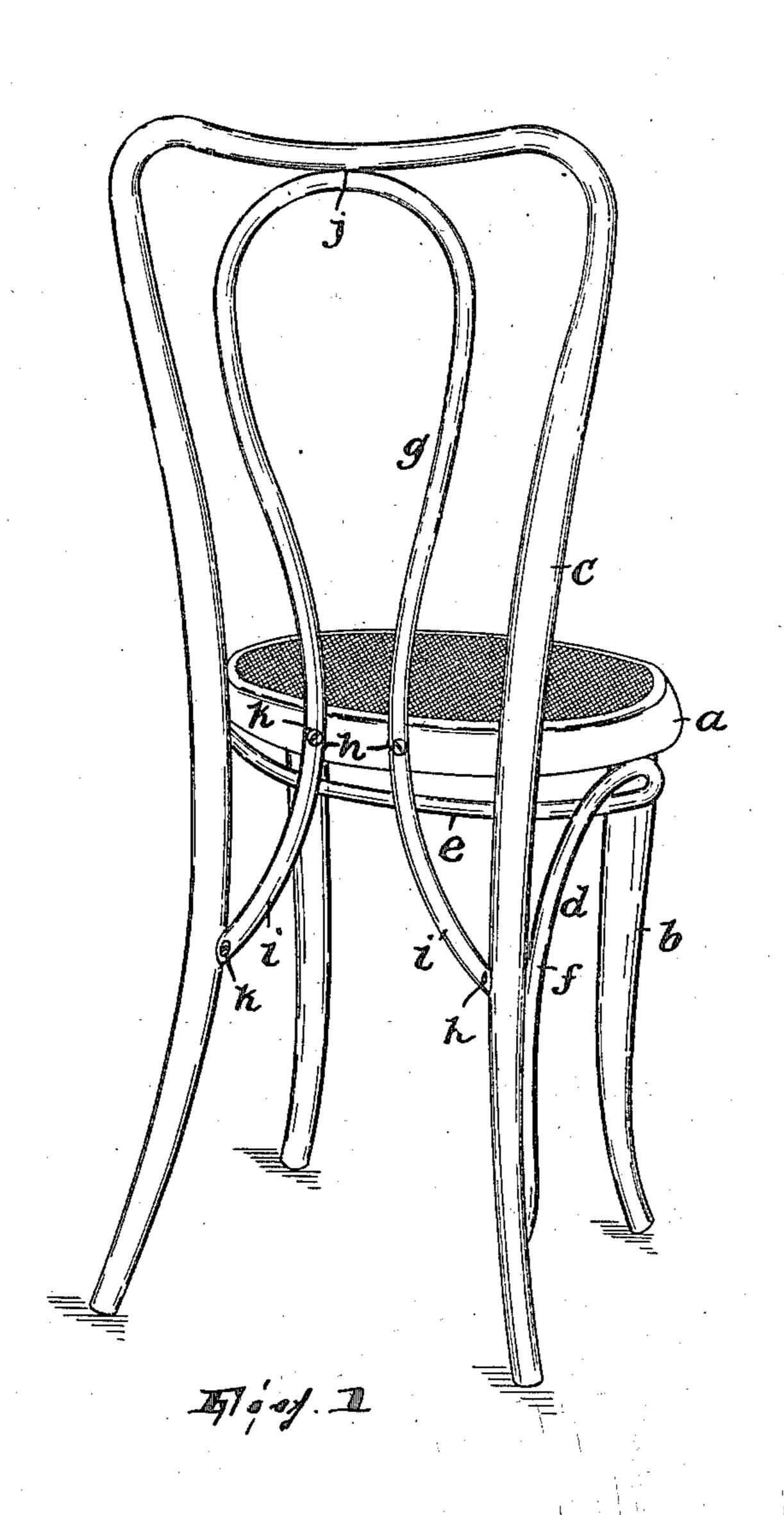
## A. WANNER, JR. CHAIR.

APPLICATION FILED SEPT. 16, 1908.

950,974.

Patented Mar. 1, 1910.
3 SHEETS—SHEET 1.



WITNESSES-

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Min Bell. Clair Haufmann.

By Lucy Steward,

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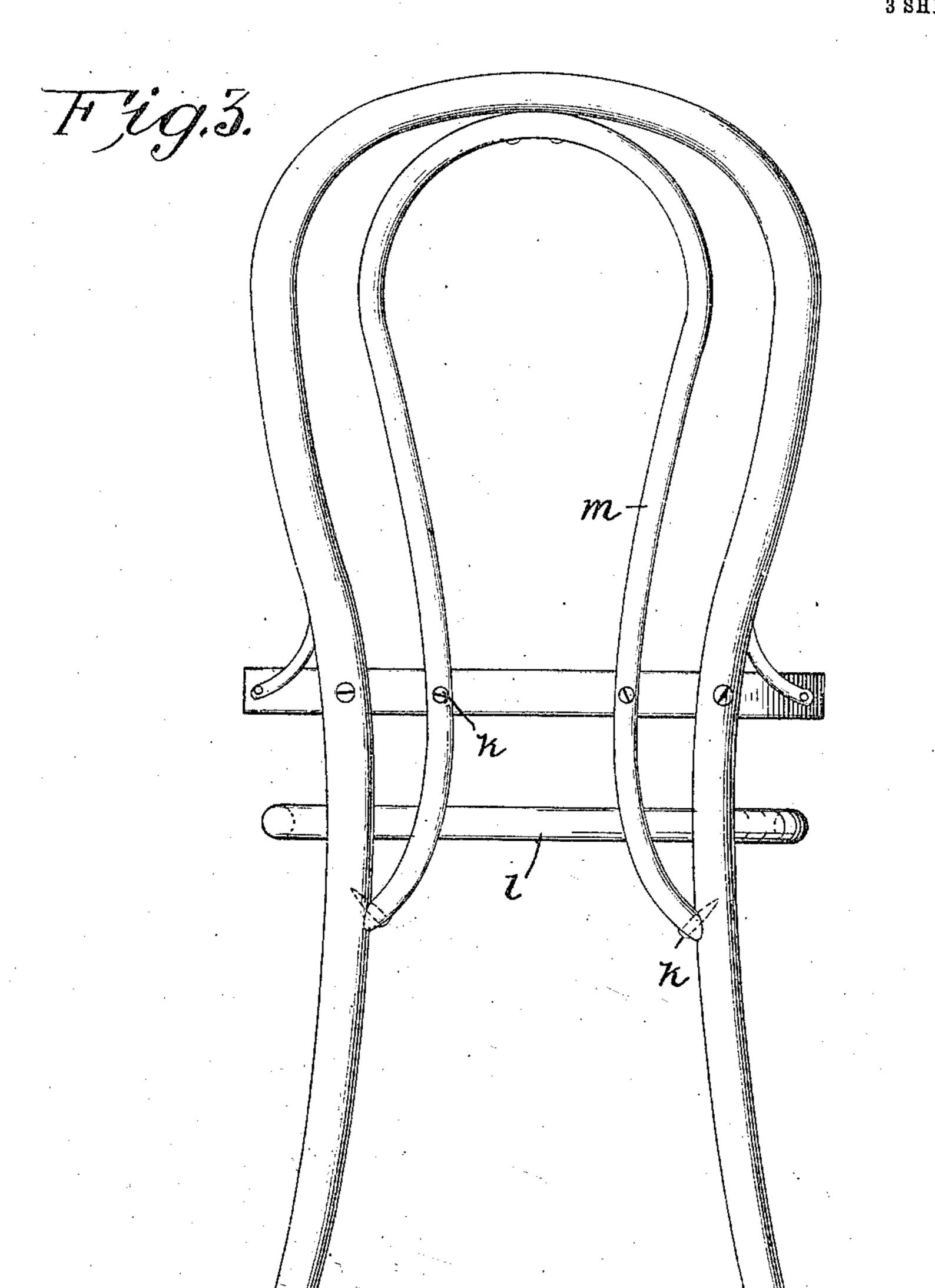


Fig. 2. Inve

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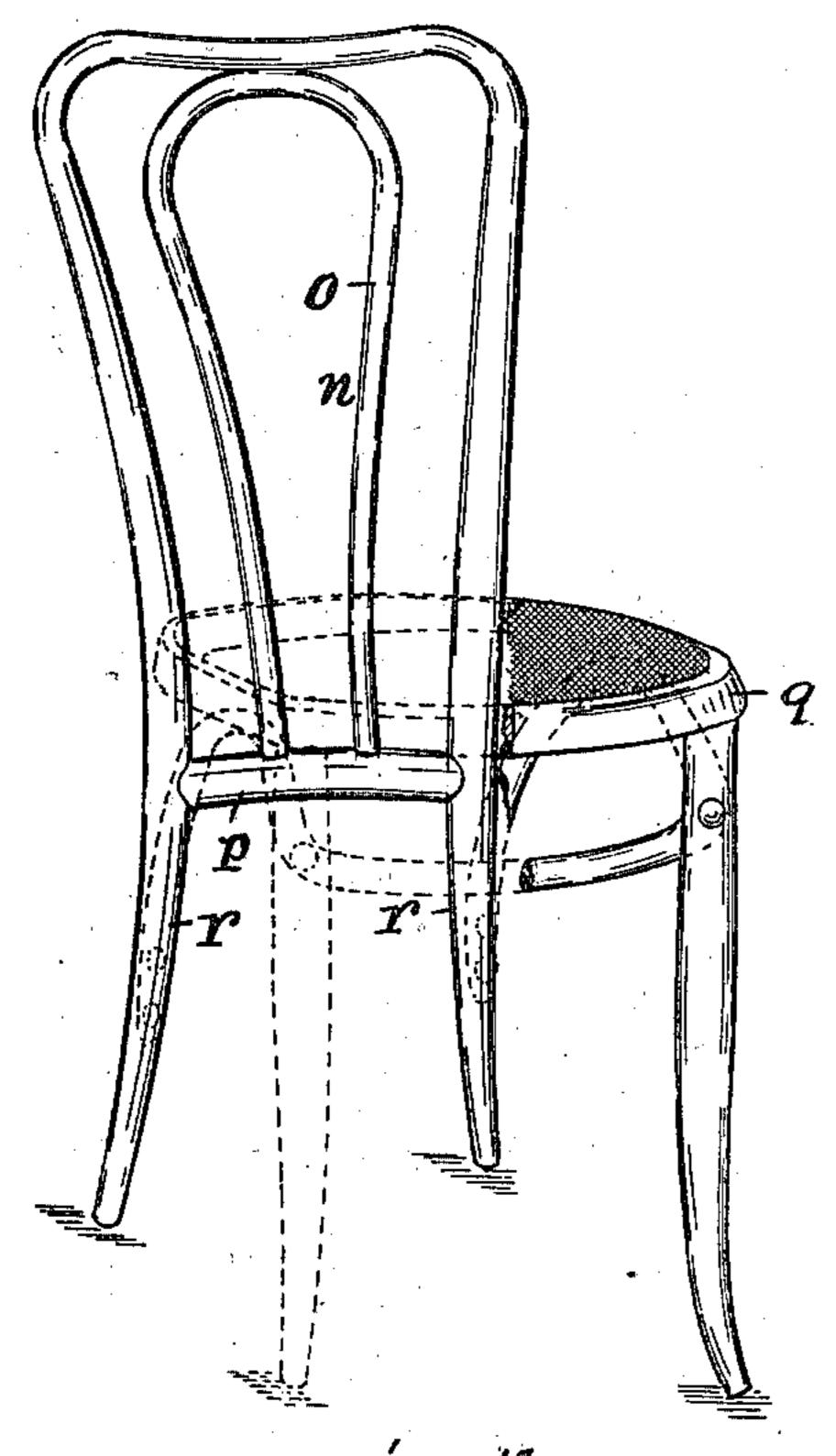
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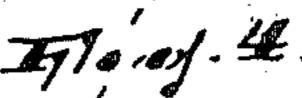
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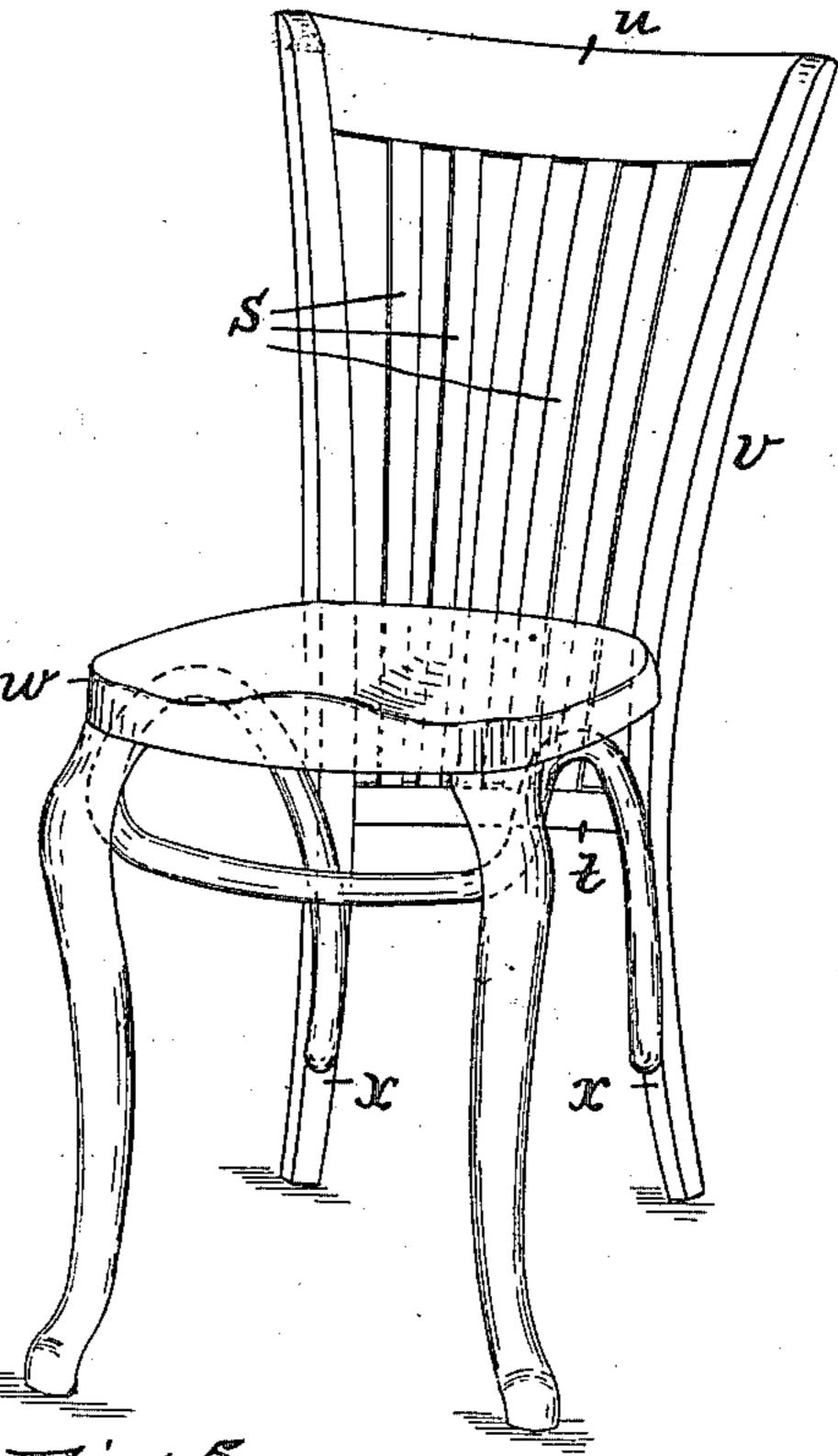
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3 SHEETS—SHEET 3.







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## UNITED STATES PATENT OFFICE.

ALBERT WANNER, JR., OF HOBOKEN, NEW JERSEY.

CHAIR.

950,974.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed September 16, 1908. Serial No. 453,323.

To all whom it may concern:

Be it known that I, Albert Wanner, Jr., a citizen of the United States, residing in Hoboken, Hudson county, New Jersey, have invented a certain new and useful Improvement in 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 of reference marked thereon,

which form a part of this specification.

This invention relates to chairs and particularly to bent-wood chairs having, instead of the usual ring-brace for supporting the legs, a brace of the type shown in my U.S. Letters Patent No. 819,478, the object being to strengthen the chair generally and reinforce the back-legs in particular, especially against the test of this specification.

cially against the tendency to loosen from the seat or break under sidewise or twisting strains. The invention is not limited in its application to chairs of the kind particularly set forth above, however, being applicable also to other types of chairs, as will be obvious.

The invention will be found fully illustrated in the accompanying drawings, wherein,

Figure 1 is a perspective view of one form of the improved chair as seen from the rear thereof; Fig. 2 is a cross-sectional view taken in the plane of the joint between one 35 of the back-legs and the lower end of the structure forming the back and back-leg brace; Fig. 3 is a rear view of another form of the improved chair, the same having in this instance the ordinary ring-brace supporting its 40 legs; Fig. 4 is a perspective view of a chair illustrating a modification of the invention; and, Fig. 5 is a similar view illustrating another modification.

Referring, first, to Figs. 1 and 2, the chair comprises the seat a, the front-legs b, and the bent-wood back and back-leg structure c, the same being secured together in the usual manner the chair also comprises a brace d in the form of a single (preferably) piece of wood secured to the front legs, seat and back-legs and so bent as to produce the substantially straight middle portion c, connecting the front legs, and the upwardly arched endportions f, each connecting a front and a back-leg and bearing against the under side of the seat.

In carrying out my invention I provide a bracing structure which takes against the back-legs below the seat and rigidly sus-. tains them against movement toward each 60 other, said structure having a substantially straight form in side elevation; said structure may in some instances be also adapted to sustain the back and back-leg structure against movement relatively to the seat. In 65 the figures of the drawings, now being referred to, this brace or bracing structure is in the form of a single (preferably) piece of bent-wood g in the shape, generally, of an inverted U having its extremities subr 70 stantially upright and being bent first inwardly toward each other, as at h, and then flaring, as at i. At the top of the brace it is secured in the usual manner to the top of the chair-back, as at j: the extremities are 75 further secured, as by screws k, to the back of the seat a and, at their ends, to the legs, which may be doweled (Fig. 2) to receive . said ends. The brace g being secured at its lower ends to the back-legs below the seat 80 and in its upper portion to the top of the back, and being further, in the present instance, rigidly secured to the seat, the backlegs are supported against movement toward each other as well as against move- 85 ment relatively to the seat, thus imparting to the chair as a whole perfect rigidity and insuring it against its parts working loose through sidewise or twisting strains.

In Fig. 3 substantially the same form of 90 brace is shown as applied to a bent-wood chair of the well known type in which the legs are braced by means of a ring brace 1. The extremities of the brace m, which is a counterpart of the brace g, may be secured, 95 as shown, to both the seat and the ring brace, or either of them, and it has its ends doweled into the back-legs and secured thereto in a plane below the seat, the same as in Fig. 1.

In Fig. 4, a bracing structure n is shown which comprises the U-shaped bent-wood member o and the cross-piece p; the member o is secured at its top to the top of the back and it has its extremities doweled into or 105 otherwise secured to the cross-piece, which latter is arranged below the seat q of the chair and is doweled into the legs r or otherwise secured thereto.

In Fig. 5 the bracing structure comprises 110 the parallel members or spindles s and the cross-piece t, the members s being secured at

their upper ends to the top piece u of the the back-legs between the points of securing back v of the chair and at their lower ends said brace above and below the seat, subbeing secured to the cross-piece t, which is disposed below the seat w and connects the 5 back-legs s, being doweled into or otherwise secured to the same.

It will be observed that in Figs. 3, 4 and 5, as in Fig. 1, the back-legs being rigidly held against movement toward each other at a 10 point below the seat, the chair is strengthened and reinforced in the same respect as

that shown in Fig. 1.

I make no specific claim herein to the construction shown in Figs. 4 and 5, the same 15 having been made the subject matter of a divisional application, Serial No. 476101.

Having thus fully described my invention, what I claim as new and desire to secure

by Letters Patent is:

1. The combination, with a chair having a seat, a back, back-legs and front legs, of a bracing structure having a substantially straight form in side elevation and attached to the back above the seat and also attached 25 to the back-legs below the seat and holding said back-legs against movement toward each other, substantially as described.

2. The combination, with a chair having a seat, a back, back-legs and front legs, of a 30 bracing structure having a substantially straight form in side elevation and attached to the back above the seat and also attached to the back-legs below the seat and bearing against the seat, substantially as described. 35 . 3. The combination, with a chair having a seat, a back, back-legs and front legs, of a bracing structure having a substantially straight form in side elevation and attached to the back above the seat and also attached 40 to the back-legs below the seat and being also attached to the seat, substantially as de-

scribed. 4: The combination, with a chair having a seat, an arched back and back-legs, of an 45 inverted substantially U-shaped brace having a substantially straight form in side elevation and secured to the back above the seat and extending and secured below said seat to the back legs, said brace standing

50 clear of both side portions of the back and

.

stantially as described.

5. The combination, with a chair having a seat, a back and back-legs, of an inverted 55 substantially U-shaped brace having a substantially straight form in side elevation and secured to the seat and to the back above the seat and extending and secured below said seat to the back legs, substantially as de- 60 scribed.

6. The combination, in a chair, of the seat, the front legs, the back and back-leg structure, and a substantially U-shaped brace secured to the back and back-leg structure 65 above the seat and also secured to the seat and having its lower ends diverging and secured to the leg-portions of said back and back-leg structure below the seat, substan-

tially as described.

7. The combination, with a chair having a seat, a back and back-legs, of a brace having a substantially straight form in side elevation and comprising downwardly projecting substantially upright portions, said brace being 75 secured to the back above the seat and each of its downwardly projecting portions extending from above the seat to a back-leg below the seat and being secured to the latter below the seat, substantially as de- 80 scribed.

8. The combination, with a chair having a seat, a back and back-legs, of a brace having a substantially straight form in side elevation and comprising downwardly project- 85 ing substantially upright portions, said brace being secured to the back above the seat and each of its downwardly projecting portions extending from above the seat to a back-leg below the seat and being secured to said seat 90 and also to said back-leg below the seat, substantially as described.

In testimony, that I claim the foregoing, I have hereunto set my hand this 14th day

of September, 1908.

ALBERT WANNER, JR.

Witnesses:

C. L. FINK, CHAS. E. WALTER.