

(No Model.)

2 Sheets—Sheet 1.

J. F. SARGENT.

CHAIR BRACE.

No. 413,291.

Patented Oct. 22, 1889.

Fig. 1.

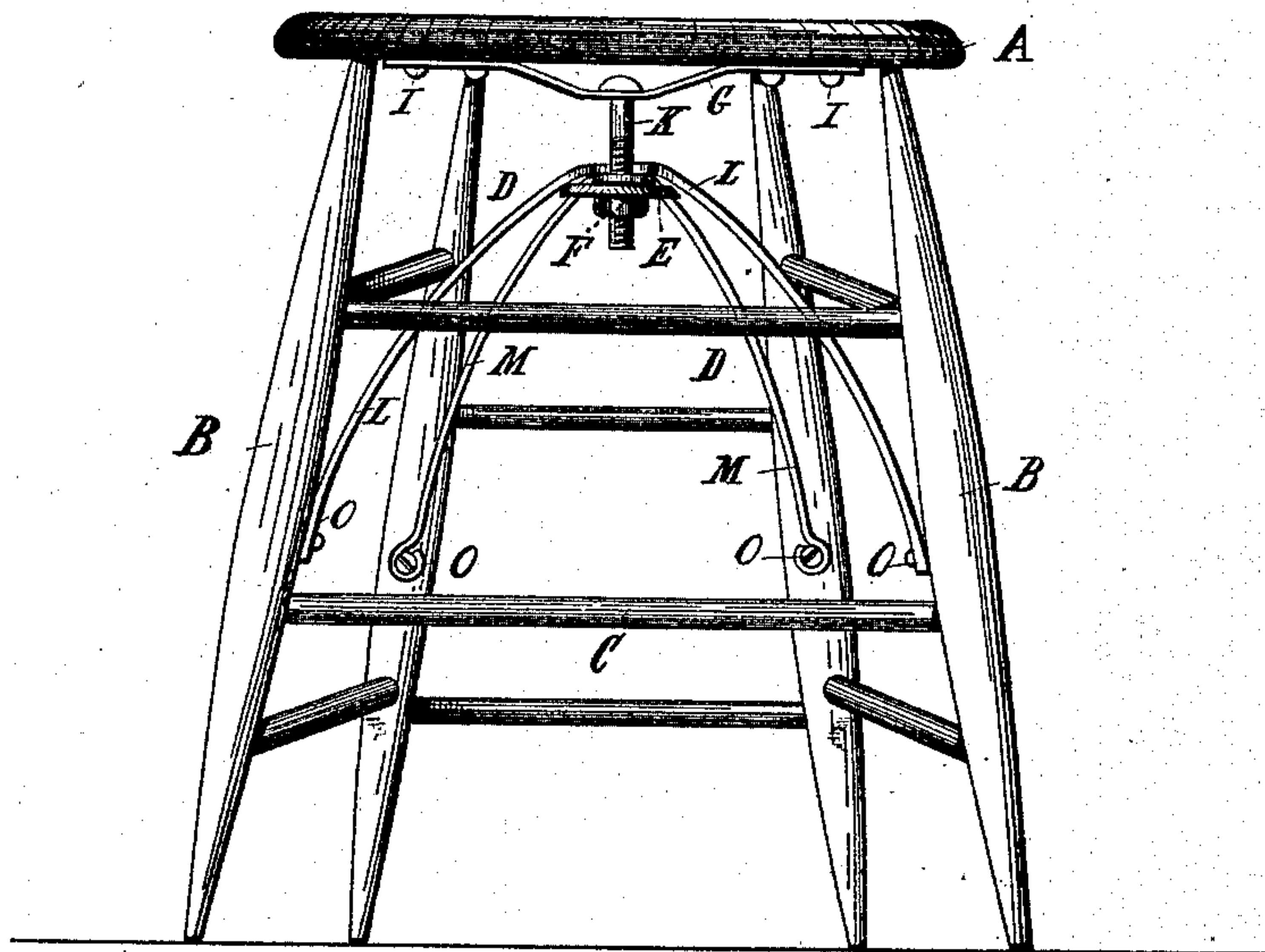


Fig. 2.

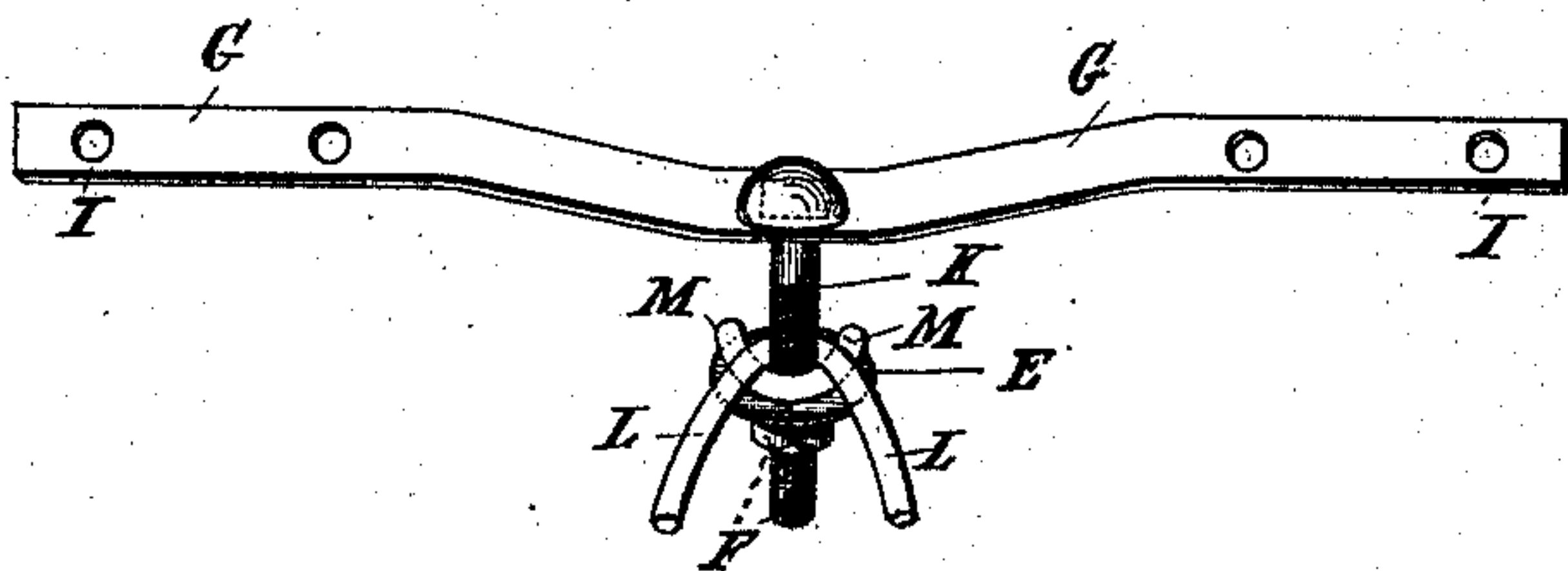
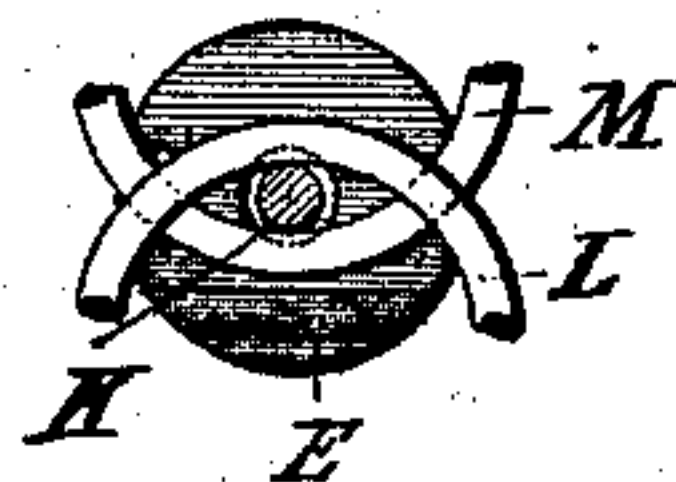


Fig. 3.



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Fig. 4.

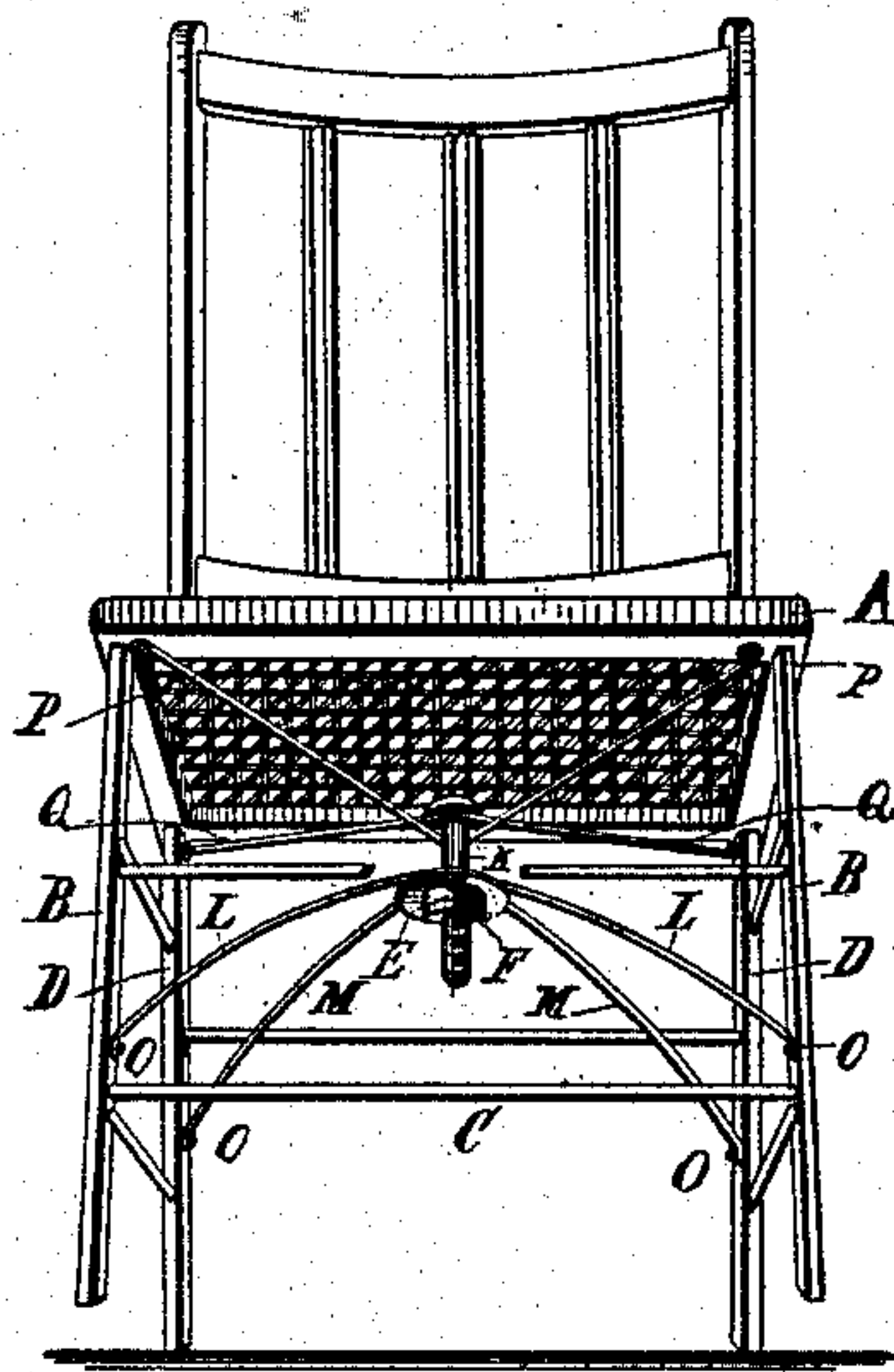
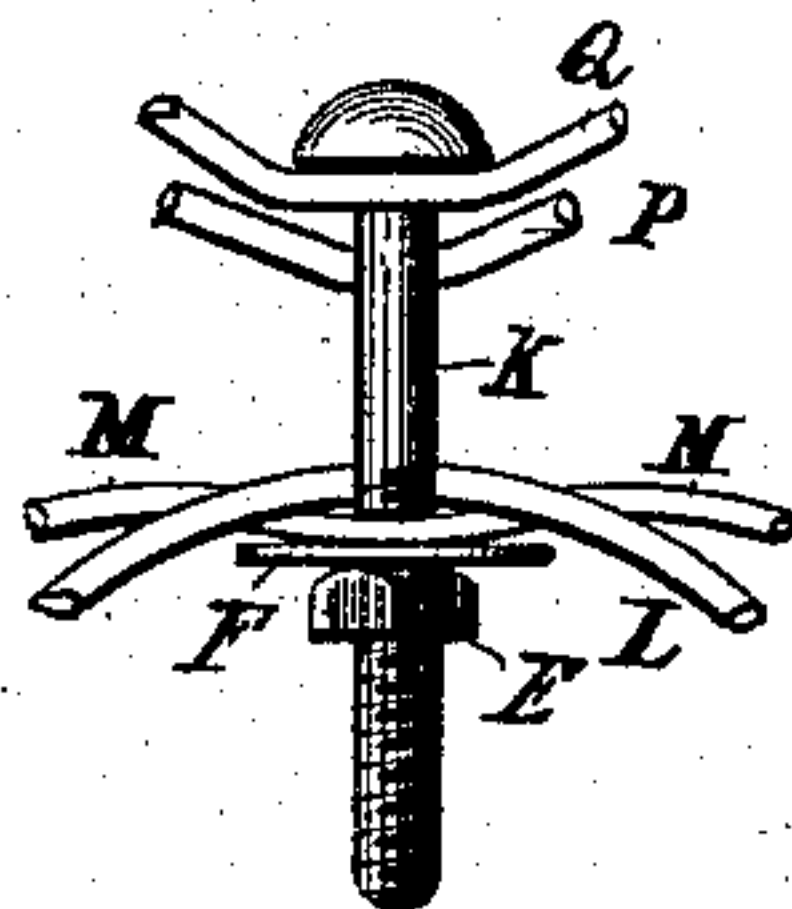


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES F. SARGENT, OF BROOKLYN, NEW YORK.

CHAIR-BRACE.

SPECIFICATION forming part of Letters Patent No. 413,291, dated October 22, 1889.

Application filed October 4, 1888. Serial No. 287,224. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. SARGENT, a citizen of the United States, residing at the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Chair-Braces, of which the following is a specification.

My present invention is an improvement on that for which Patent No. 359,891 was granted to me on the 22d day of March, 1887. In that invention I hooked all the braces into an iron plate in the middle of the chair below the bottom, holding up said plate with a hook, which rested on cross-wires fastened to the bottom of the chair, and having a screw-tine passing through said plate and secured by a nut fitted on said screw beneath said plate. Each brace was a separate piece. In my present invention the said plate is dispensed with, each two braces are in one piece, sustained by a bolt, nut, and washer. The head of the bolt in the case of a chair or stool having a solid wood bottom being secured in sheet-metal strap, attached to the bottom of the chair or stool, and in the case of a chair having a cane or upholstered bottom, the head of the said bolt is secured by wire stays passing from side to side under and secured to the bottom and bent so as to hold said bolt securely.

Figure 1 is a perspective view of a stool with my improved chair-brace attached. Fig. 2 is a detail view illustrating the mechanism of my improved chair-brace. Fig. 3 is another detail view illustrating the same. Fig. 4 illustrates a cane-bottomed chair with my improvement attached. Fig. 5 is a detail view illustrating a part of the improvement as adapted to cane-bottomed and upholstered chairs.

In Figs. 1, A designates the seat of the stool, B the legs, and C D the rungs.

G designates a strap of sheet metal, punched in the middle with a square hole and with screw-holes I at either end. In this middle hole is placed the square part of the tine of a common carriage-bolt, as illustrated in Figs. 1 and 2. The strap G is then fastened upon the bottom of the seat A by means of screws, with the head of the bolt in and the tine out.

Each brace M and each brace L is made of one single piece of wire, formed with a short half-turn in the middle to rest against the bolt K, and also formed with an eye on either end to accommodate a flat-headed screw, as illustrated. These braces, having been attached by the flat-headed screws O to diagonally-opposite legs of the stool, are placed against the bolt, as shown in the drawings. The washer E is then slipped on and the nut F turned on to strain the braces. As the braces are tightened, the strap G will be pulled downward until it assumes the position illustrated in Fig. 1. If there should be any cracks in the seat of the stool between the two inside end screws, this bending of the strap G will draw them together, and not only will the brace hold the legs and rungs in place, but the strap G will also stay the seat, so that the whole stool will be held firmly in position by an unyielding metallic support.

It is obvious that with slight variation this brace may be applied to all ordinary chairs with the same beneficial effect, and that although the chair may be old and the parts loose, still this brace will return them to their proper positions and hold them as firmly as if new; and in order to further carry out my invention, so that it may be applicable to chairs having cane bottoms or upholstered bottoms, instead of the sheet-metal straps G, I use two wire braces. (Designated, respectively, by P and Q.) These are formed and bent similarly to the braces L and M, heretofore described, and holding the common carriage-bolt K just below the head in the same way having their outer ends fastened to the frame of the chair-bottom with flat-headed screws, as illustrated in Fig. 4. The braces are strained in this case also by turning up the nut E. In this case, as in the last, the parts of the chair will be drawn close and held tightly together.

I am aware that heretofore chair-braces have been constructed with a single wire brace to support the head of a suspended bolt. In that case a bolt specially made for the purpose, having a groove on the under side of its head and a hole through its neck for the accommodation of said wire, was used. The

lower braces consisted of thin wires, making full turns around the tine of the bolt. I do not claim such a construction; but

What I do claim, and desire to secure by Letters Patent, is—

1. The combination, with a seat and legs of a chair or stool, of an ordinary carriage-bolt, its nut, washer, and braces, substantially as described, attached to said seat and surrounding the neck of said bolt to hold the same in place, and wire braces attached by either end to said legs and by a half-turn in their middles surrounding the tine of said bolt within said nut and washer, substantially as and for the purpose set forth.

2. The combination, with a seat and legs of a chair or stool, of a common carriage-bolt, its nut and washer, two wire braces attached

by their ends to the front and back rails of said seat and by a half-turn in their middles surrounding the neck of said bolt to hold the same in place, and two wire braces attached by their ends to said legs and by a half-turn in their middles surrounding the tine of said bolt within said nut and washer to hold said tine in place, and all so arranged that facility is afforded for straining said braces and holding the parts of said chairs and stools firmly in proper position, substantially as and for the purpose set forth.

In witness whereof I hereunto set my hand in presence of two witnesses.

JAMES F. SARGENT.

Witnesses:

ALLAN M. STODDART,
C. E. McDONALD.