

W. SCHNABEL.

CHAIR-SEAT.

No. 176,486.

Patented April 25, 1876.

Fig. 1.

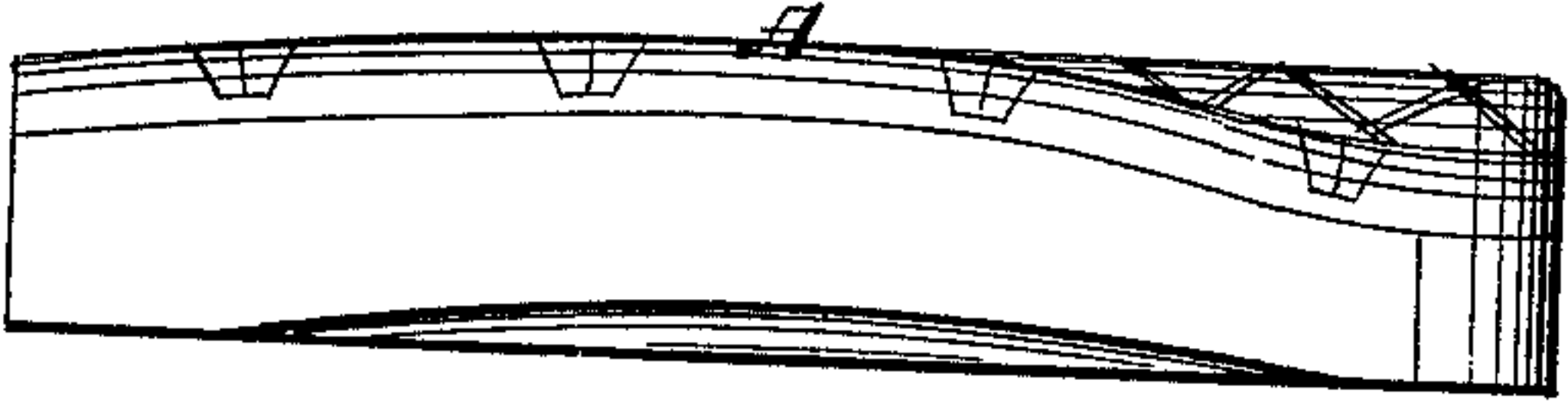


Fig. 2.

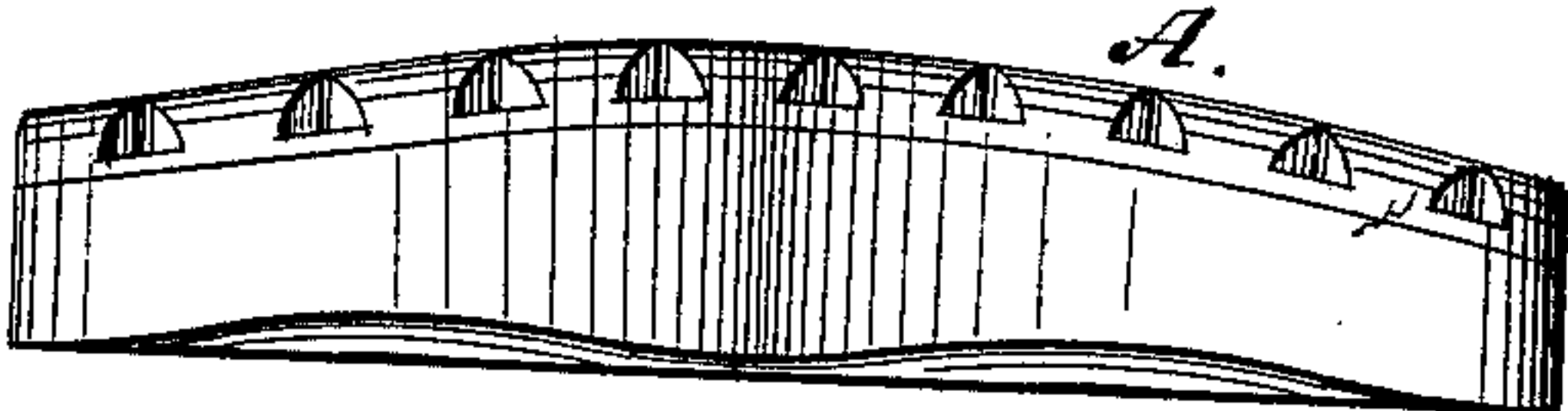


Fig. 3.

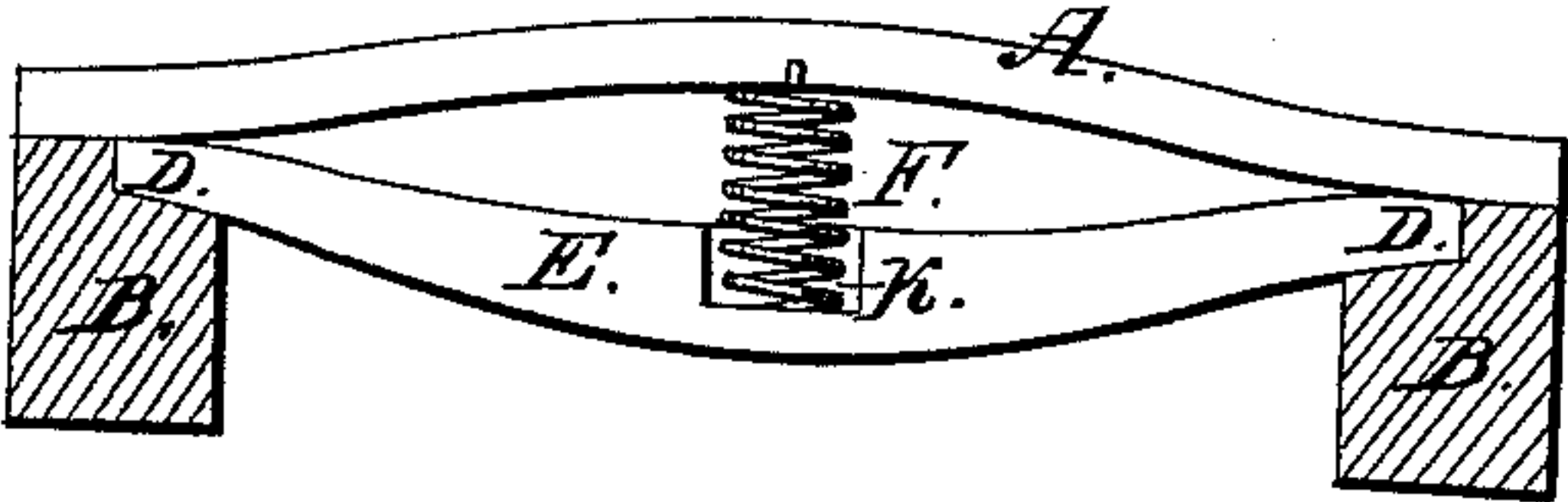


Fig. 4.

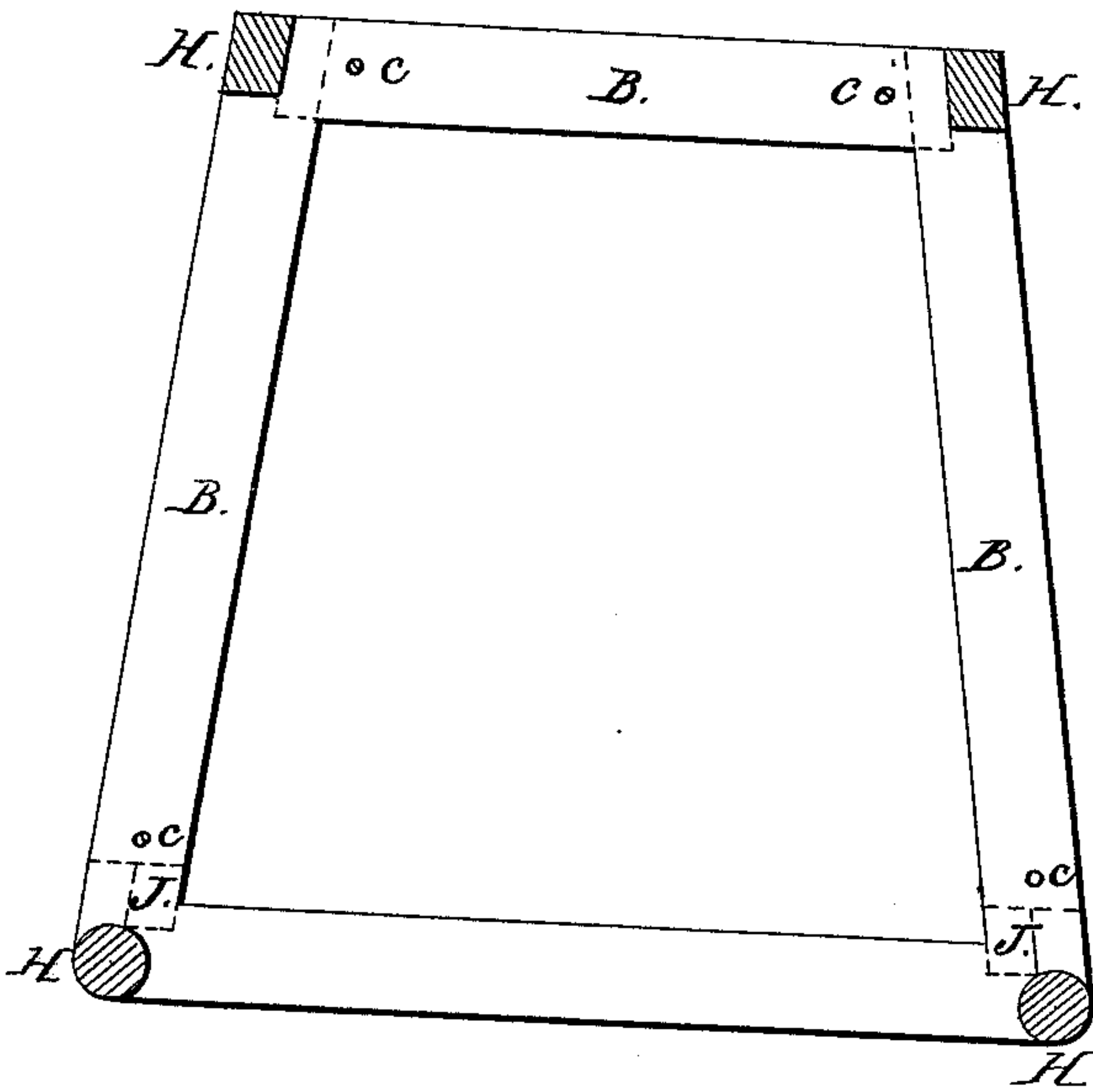


Fig. 7.

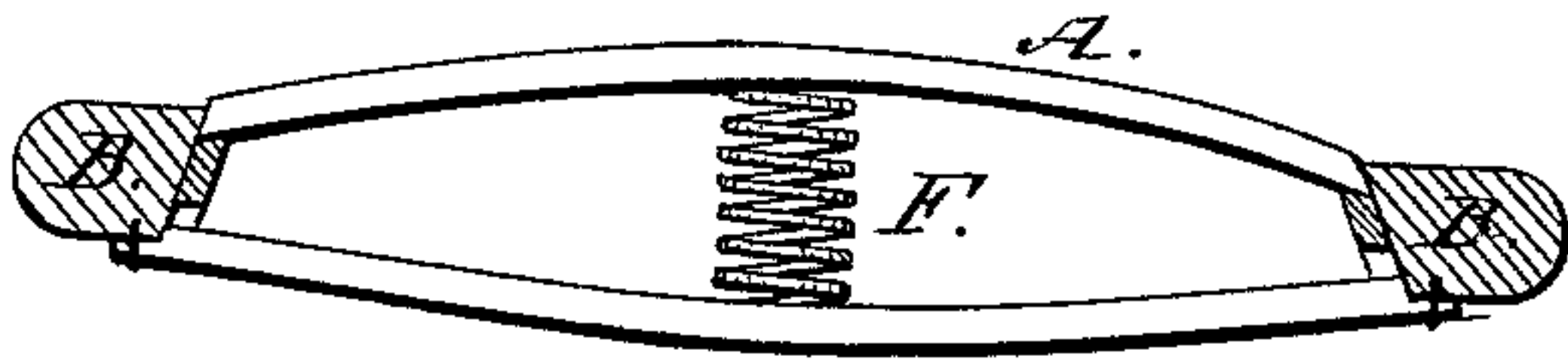
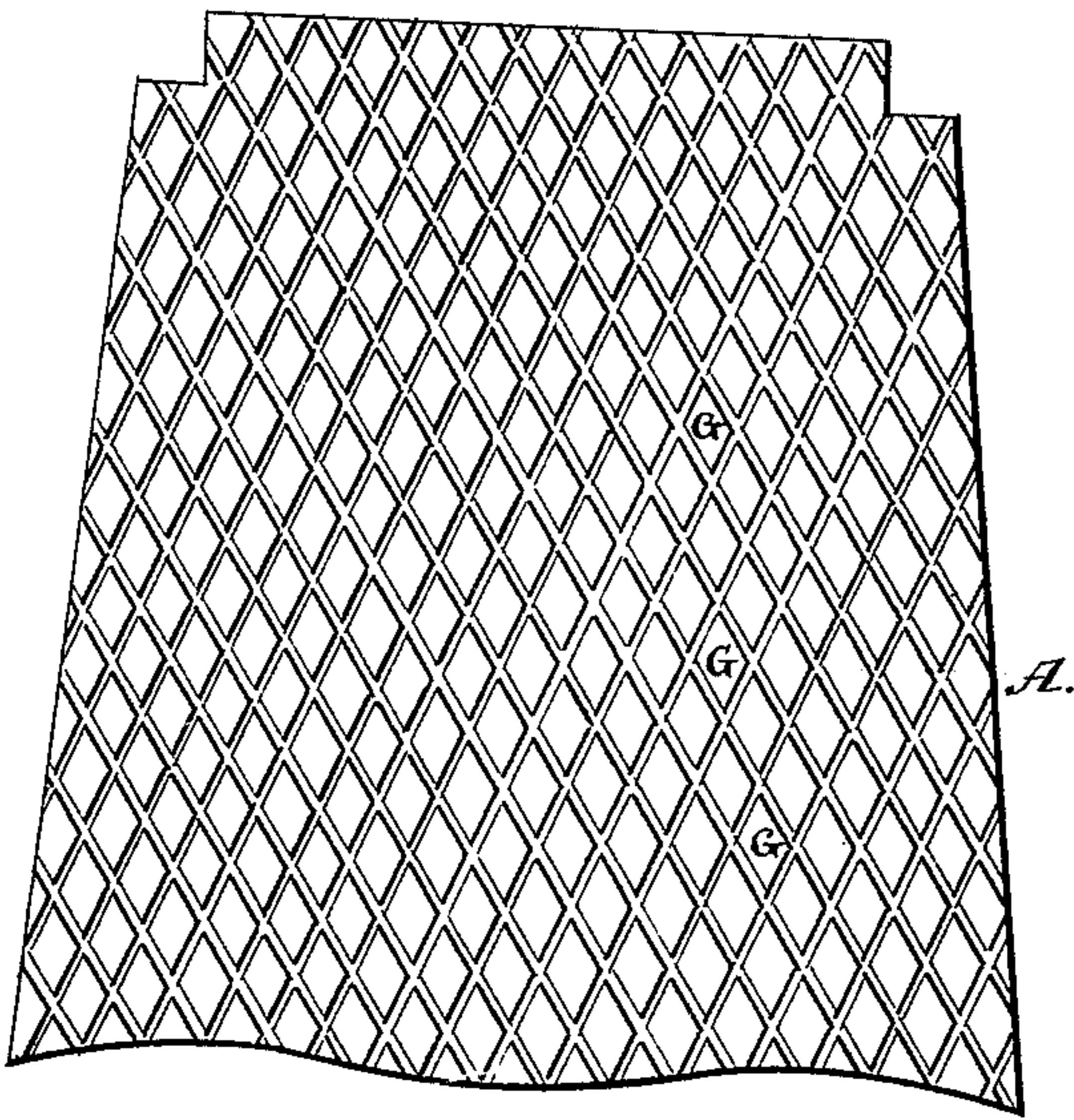


Fig. 6.



Fig. 5.



Witnesses:

Richard Henry Jephson  
Charles Edward Pitton

Inventor:

Wm Schnabel



# UNITED STATES PATENT OFFICE.

WILLIAM SCHNABEL, OF ORILLIA, CANADA.

## IMPROVEMENT IN CHAIR-SEATS.

Specification forming part of Letters Patent No. **176,486**, dated April 25, 1876; application filed June 23, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM SCHNABEL, of the town of Orillia, in the county of Simcoe, and Province of Ontario, and Dominion of Canada, cabinet-maker, have invented a certain new and useful Elastic Seat, constructed of wood; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention consists of making a series of suitable cuts into the surface of a piece of board of suitable size and thickness for the seat required. These cuts may be of different sizes or shapes, but must cross each other at suitable angles and penetrate within one-eighth of an inch, more or less, according to the thickness of the piece of board, from the bottom side of the seat, and according to the elasticity required. The seat, being elastic, can be attached to frames of various shapes, and can be fastened to the frame after it has been upholstered.

The seat can be strengthened and kept in an elevated position at its center by one or more springs, which rest on one or more bridges fixed across the frame, one spring to each bridge, the number of bridges necessary being determined by the size of the seat. In an ordinary chair one bridge would be sufficient. If the seat has to sustain any extraordinary weight it will rest on the bridge.

To cover or upholster the seat is very simple, and can be performed by any unskilled person, and yet have a handsome appearance. After the seat is fastened to the frame it will have the appearance of having been upholstered solid to it. This seat may be strengthened by gluing strips of strong cloth underneath.

This elastic seat can be applied in any instance where an elastic seat is required, and is especially adapted to the backs of rocking-chairs and benches, and the seats of street or railway cars, and chairs, the latter of which I have selected for my explanation, and for which I have drawn my plans and model.

The sides will be beveled gradually inward toward the upper edge, allowing sufficient room to apply the seat from the under side, the sides of which will be beveled con-

versely, and thereby fitting closely and firmly. The seat will be secured by narrow strips L fastened underneath to sides of frame. The seat may either be covered with suitable covering, or may be painted or varnished, according to the demand.

The bridge is introduced as a means of strengthening the seat when any pressure is laid upon it. It will be constructed of wood sloped on the upper side in a reversed curve to that of the seat. It will be supported on grooves let in on the sides of the frame. Its thickness at the center will be about three times that at the sides, and a hole large enough to admit of an ordinary-sized spring will require to be let into it. The spring is introduced simply to elevate the center of the seat to a neat and becoming elevation, and does not require to be fastened either to the bridge or seat, but is kept in its proper place by the pressure it will sustain.

The frame will be attached to the elastic seat by means of four screws countersunk into the frame.

Figure 1 represents the side of the frame. Fig. 2 represents the front elevation of same. Fig. 3 is a plan of the bridge. Fig. 4 is a plan of the frame. Fig. 5 is a plan of the elastic seat. Fig. 6 is a longitudinal section of same; Fig. 7, section of flat frame.

A is the elastic seat when attached to frame B. C shows the position of the screws countersunk into the frame. D is the groove let into the frame to receive the sides of the bridge. E is the bridge. F is the spring. G are the incisions or cuts made into the board, which are made very fine, sufficiently wide to allow the elasticity required, and not too wide to weaken the seat. H are the legs of the chair. J are the mortises fastening the sides to the front and back of frame. L L are strips supporting seat in flat frame.

I make no claim to the mode in which the frame is attached to the legs; nor to the mode in which the sides are attached to the front and back; nor do I make a claim to the spring, for I am aware that these are not new; but

I claim as my invention—

1. The chair-bottom described, consisting

of a thin sheet of wood, having shallow grooves cut diagonally or of a diamond shape on its upper face, as and for the purpose described.

2. In combination with the chair-bottom A, constructed as described, the frame B and bridge E adapted to support the spiral spring F, as and for the purpose described.

Town of Orillia, Province of Ontario and  
Dominion of Canada, June 21, 1875.

WILLIAM SCHNABEL.

Witnesses:

RICHARD JENNY JEPHSON,  
CHARLES EDWARD FILTON.