

(No Model.)

H. ROBERTS.
WOVEN WIRE SEAT.

No. 276,881.

Patented May 1, 1883.

Fig. 1.

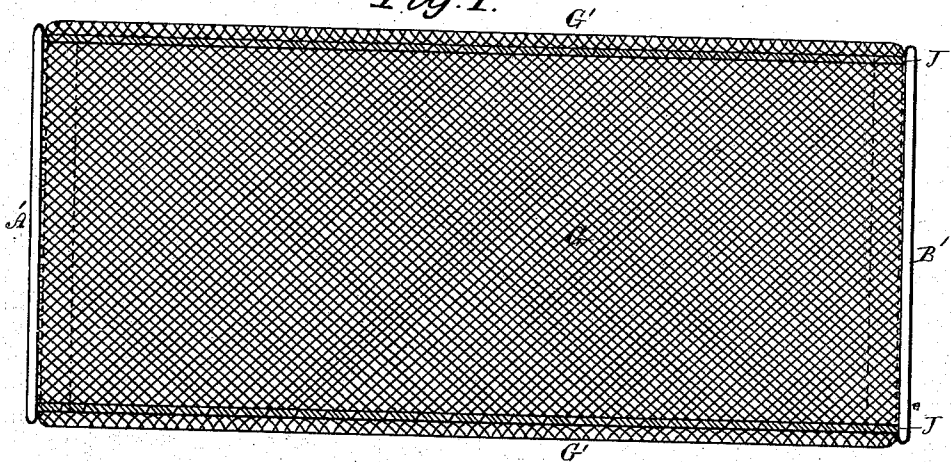


Fig. 2.

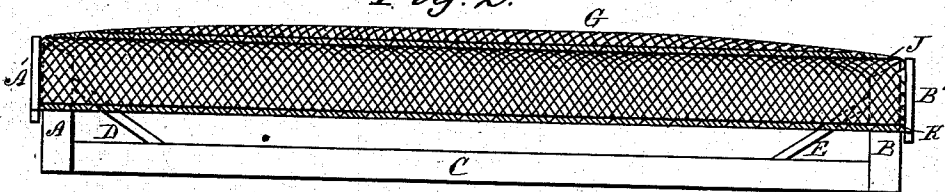


Fig. 3.

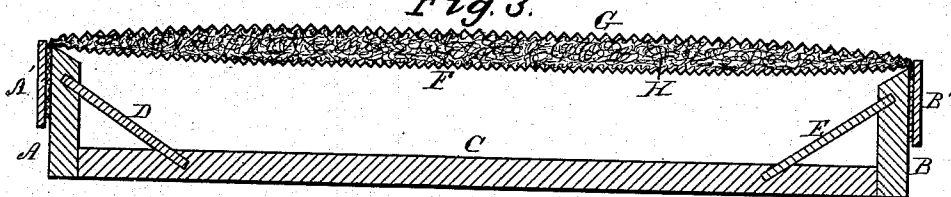
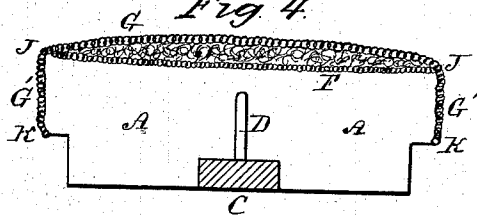


Fig. 4.



Witnesses.
Edwin F. Dimock.
Wilmot Horton

Inventor.
Henry Roberts
by Theo. G. Ellis, Attorney

UNITED STATES PATENT OFFICE.

HENRY ROBERTS, OF HARTFORD, CONNECTICUT.

WOVEN-WIRE SEAT.

SPECIFICATION forming part of Letters Patent No. 276,881, dated May 1, 1883.

Application filed July 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY ROBERTS, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Woven-Wire Seats; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My improvement relates to seats which are made partially or wholly of elastic spiral coils of wire interlocked or woven together to form the fabric now commonly known as "woven wire." It is also applicable to mattresses or beds, but is more particularly intended for the seats of railway-cars.

My invention has for its object the better adaptation of the above-named fabric for the purposes of a seat than has heretofore been known or used, and to avoid the fault of sagging down, so as to be lower at the middle than at the ends, where it is commonly attached to the frame.

In the accompanying drawings, illustrating my invention, Figure 1 is a top view of my improved seat. Fig. 2 is a side view of the same. Fig. 3 is a longitudinal section through the middle of the seat, showing the interior construction. Fig. 4 is a vertical cross-section through the middle, showing also the end of the frame beyond.

A and B are the ends of the frame between which the woven-wire fabric is stretched, and to which it is secured by being clipped by the cross-pieces A' and B', and held by screws, as is commonly done in beds, or in any other customary manner.

C is a longitudinal bar for receiving the pressure of the stretched fabric.

D and E are braces between the ends and the bar C.

F is a fabric of woven wire, intended to be made very stiff and of small coils of wire, so that, while being elastic to a certain extent, it will still be sufficient to sustain the weight of two persons without yielding more than the

thickness between it and the upper fabric, which will be described. This lower fabric, F, is intended to be stretched tight from end to end, and be as flat as possible when the seat is not in use.

G is a fabric of woven wire which forms the top of the seat. It extends from end to end, but is only stretched sufficiently to be held in place without becoming loose when depressed below its upward curve. It is carried over the edges of the fabric F, and extends downward to form the sides G' of the seat.

H is a filling of hair or other padding or stuffing material such as is commonly used in upholstering, forming a distributing layer between the two fabrics F and G. This is thickest in the middle and becomes thinner toward the ends, so that while the two fabrics are brought together and united at the ends of the frame they are separated at the middle, thus raising and supporting the upper fabric in the curved position shown in the drawings.

At the upper and lower edges of the side flaps, G', are strong cords J K, formed of a number of wires coiled together and placed in the fabric to give it additional stiffness and maintain the edges in their proper position, similar to the cords now employed in woven-wire mattresses for a similar purpose.

In my improved seat, as above described, the lower fabric being in a state of high tension while the upper one is comparatively slack, the former remains nearly flat and supports the latter by means of the material contained between them. When the seat is in use the upper fabric is pressed down to a certain extent, but the pressure is transmitted by the hair to the lower fabric, which sustains the weight. The seat thus retains its upward curve under all ordinary circumstances, and does not curve downward so as to crowd two passengers together, as has heretofore been the case with such seats. The hair also serves to distribute the pressure, so that no one part of the seat receives an undue proportion of the weight.

What I claim as my invention is—

1. The combination of the two elastic wire fabrics F and G with the filling H, occupying the whole space between them, and a support-

ing-frame, between the ends of which said fabrics are stretched, substantially as described.

2. A seat composed of a woven-wire fabric,
5 F, in a high state of tension for supporting the weight, a covering woven-wire fabric, G, but slightly stretched, an intervening stuffing of

hair or similar material, H, the sides G', and an extending frame, substantially as described.

HENRY ROBERTS.

Witnesses:

THEO. G. ELLIS,
EDWIN F. DIMOCK.