D. H. HEYWOOD.

CAR-SEAT.

No. 187,465. Patented Feb. 20, 1877.

Fig. 1

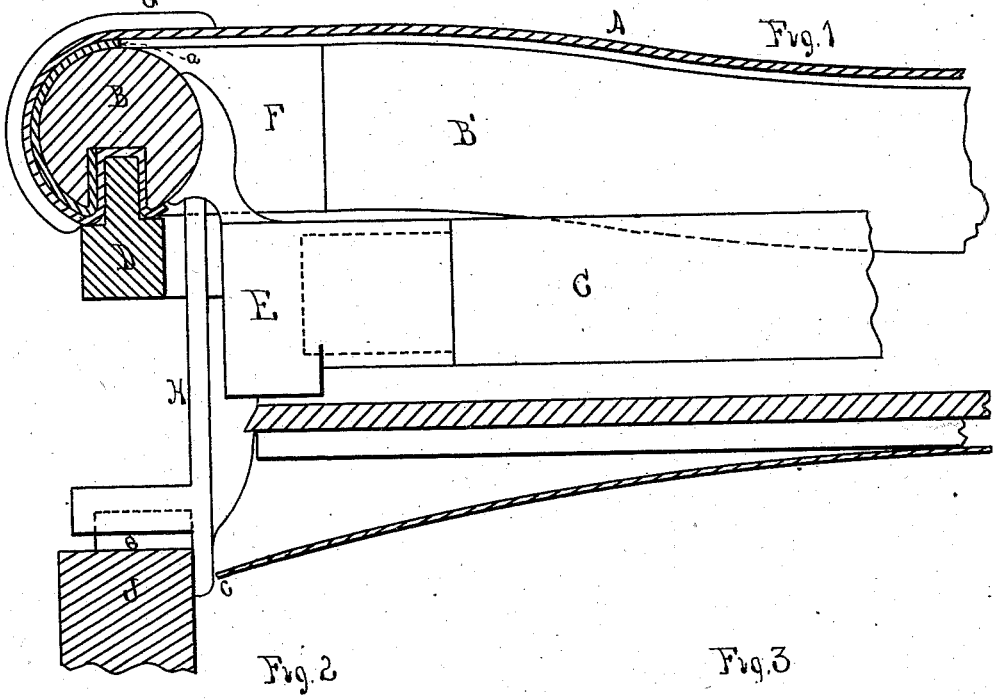


Fig. 2

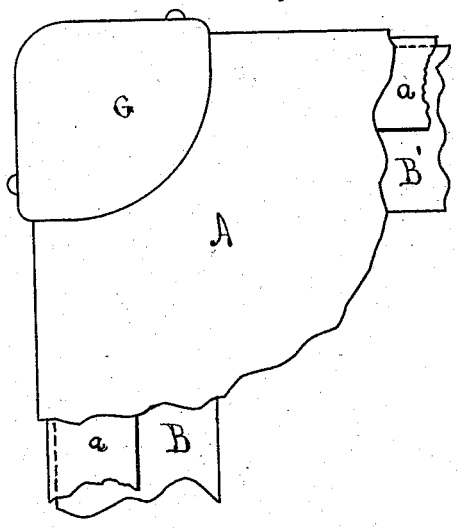
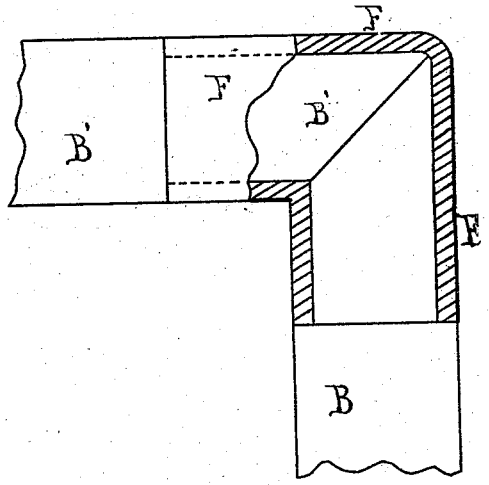


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

DANIEL H. HEYWOOD, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN CAR-SEATS.

Specification forming part of Letters Patent No. **187,465**, dated February 20, 1877; application filed October 18, 1876.

To all whom it may concern:

Be it known that I, DANIEL H. HEYWOOD, of Boston, in the county of Suffolk, and State of Massachusetts, have invented certain new and useful Improvements in Car-Seats, of which the following is a description:

My invention relates, first, to a new and improved method of constructing an open or cane car-seat, to be used interchangeably with the cushion now in use and applied to the same frame without any alteration thereof, thereby obtaining a much cooler and more comfortable seat than the cushion now used, especially in the summer season, and at the same time effecting a great saving in the wear and expense of the cushions; second, in the application of a deflector to the frame under the seat, so that when the car is heated by steam or otherwise along the floor of the car, the heated air will be deflected and prevented in a great measure from rising through the seat, thus preventing the seat from being overheated, and securing greater comfort to the passengers.

In the drawings, Figure 1 represents part of a vertical section. Fig. 2 is a top view of one of the corners. Fig. 3 is the same, with the cane and cap removed.

A is the cane bottom, which is close-woven by machinery, the cane made in this manner being much cheaper and more durable than the open bottom. B B′ are the rounds which constitute the frame, and to which the cane bottom is fastened. The ends of these rounds are fitted into socketed corner-irons of the same diameter as the rounds—this method giving cheapness, strength, and durability to the frame, and also enabling me to make the tops of the seats smooth and even at the corners. The end rounds B are bent slightly, so that the cane bottom will have a slight curvature inward, which, as is well known, makes a much more comfortable seat than a flat surface. Between the front and back side rounds B′, across the middle of the seat, I add an intermediate round, C, in order to prevent the former from springing together when the seat is occupied. The ends of this round are fitted into socketed angle-irons, provided with the upward-projecting arms fitted to the rounds B′, which arms serve to hold this round C below and away from the cane bottom, as well as to secure the cross-round C to the rounds B′ without weakening the latter.

Over the outside surface of the rounds, and between them and the cane bottom, I place a sheet of rubber, so that the cane bottom will not come in contact with the rounds. Being elastic and flexible, this strip of rubber prevents any friction between the cane and the rounds, and also forms a cushion for the cane, so that the cane bottom will form an elastic seat, and wear for a much longer time than without it.

In the under part of the rounds B B′ I make a groove, as shown in the round B′, Fig. 1. The cane is tightly drawn over and under the rounds B B′, and a cleat, D, having a tongue to fit the groove in the round, is then screwed up against the round, thus securely fastening the cane bottom to its frame.

This method of fastening the cane bottom to the frame is of great advantage in the construction of these seats, since, when the bottom wears out, the cleat may be unscrewed, being readily removable, and the old bottom replaced with a new one on the same frame with very little labor or expense.

To cover up and strengthen the cane seat at the corners, and impart a proper finish to these corners, I put on over them, outside the cane, a cap, G, made of thin metal, as iron or brass.

In order to compensate for the thinness of the cane bottom, so that it may be in the same relative position as the top of the cushion which it replaces, with reference to the other parts of the seat, I attach the cane bottom to the seat-frame by means of the legs H. These legs are attached to the corner-irons F, and rest upon the frame of the seat J, each leg having a lip or shoulder, *c*, on its inside face, which holds the bottom firmly in place; and in order to avoid any jar of the seat I place a rubber cushion, *e*, in the bottom of each leg. Instead of these legs the cleat D may be made of sufficient depth to raise the cane bottom as much as is necessary from the fixed frame.

M is a deflector made of dense or non-conducting material, which I attach to a back, *m*, and place under the car-seat.

When the car is heated by steam or otherwise along the floor of the car, the heated air rises through and causes the seat to become warm and uncomfortable, and rapidly escapes. In order to overcome this difficulty, I attach this deflector to the frame under the seat, which deflects the heat and prevents the air from rising and escaping so rapidly, thus keeping the lower parts of the car warm and comfortable without affecting the seats, as heretofore.

It will be observed that I thus produce a light and strong removable cane car-seat, which is a unit in itself, and independent of the frame attached to the car, and does not depend upon it for its strength and durability, and hence may be removed and replaced for successive seasons of warm weather at a very slight expense.

I claim as new and of my invention—

1. A removable cane car-seat, having a curved bottom raised from the fixed seat-frame, substantially as described.

2. In combination with the rounds B B′, grooved upon their lower sides, the removable strip D, fitted into such groove upon the lower side of the seat, to hold the covering A in the groove, after it is carried over the rounds, substantially as described.

3. The combination of the rounds B′ B, with the socketed metallic corner-irons F F, substantially as described.

4. In combination with the rounds B B′, the cross-bar or brace C, secured to the former by socketed metallic supports at its ends, substantially as described.

5. In combination with the seat-covering A, and the rounds B B′, the cushion or sheet of elastic material interposed between them, substantially as described.

6. The combination of the socketed metallic corner-irons F F, the rounds B B′, and the legs H H, forming a support for holding the cane bottom at the proper level above the seat-frame, which is permanently in the car, substantially as described.

7. The combination of the rounds B B′, with the socketed corner-irons F and cap G, substantially as described.

8. In combination with the covering A, the angle-cap G, fitted over the corner and secured to the seat-frame B B′, substantially as described.

9. In combination with the seat-covering A, pervious to heat, the deflector M interposed between it and the heating apparatus of the car, substantially as described.

DANIEL H. HEYWOOD.

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