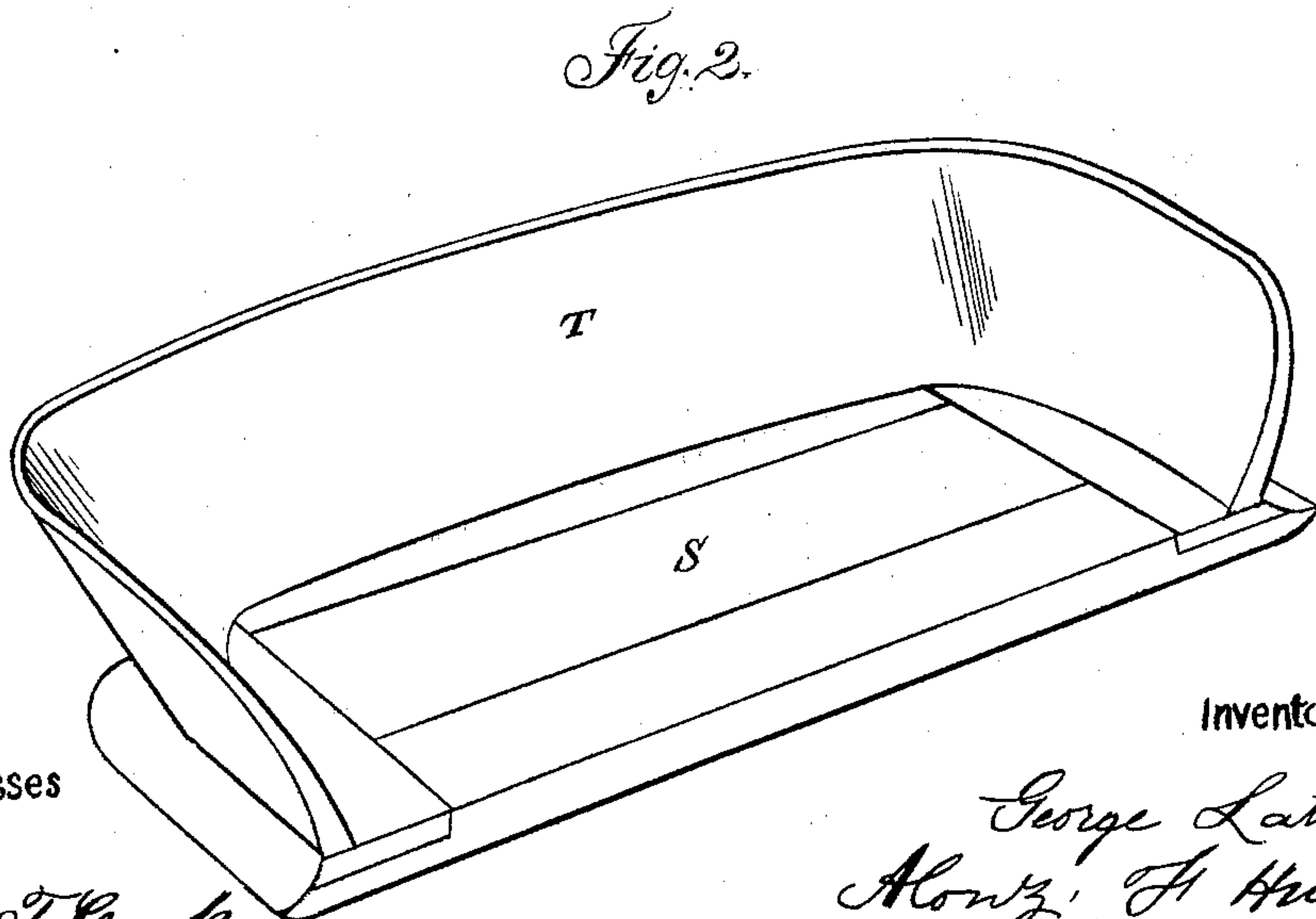
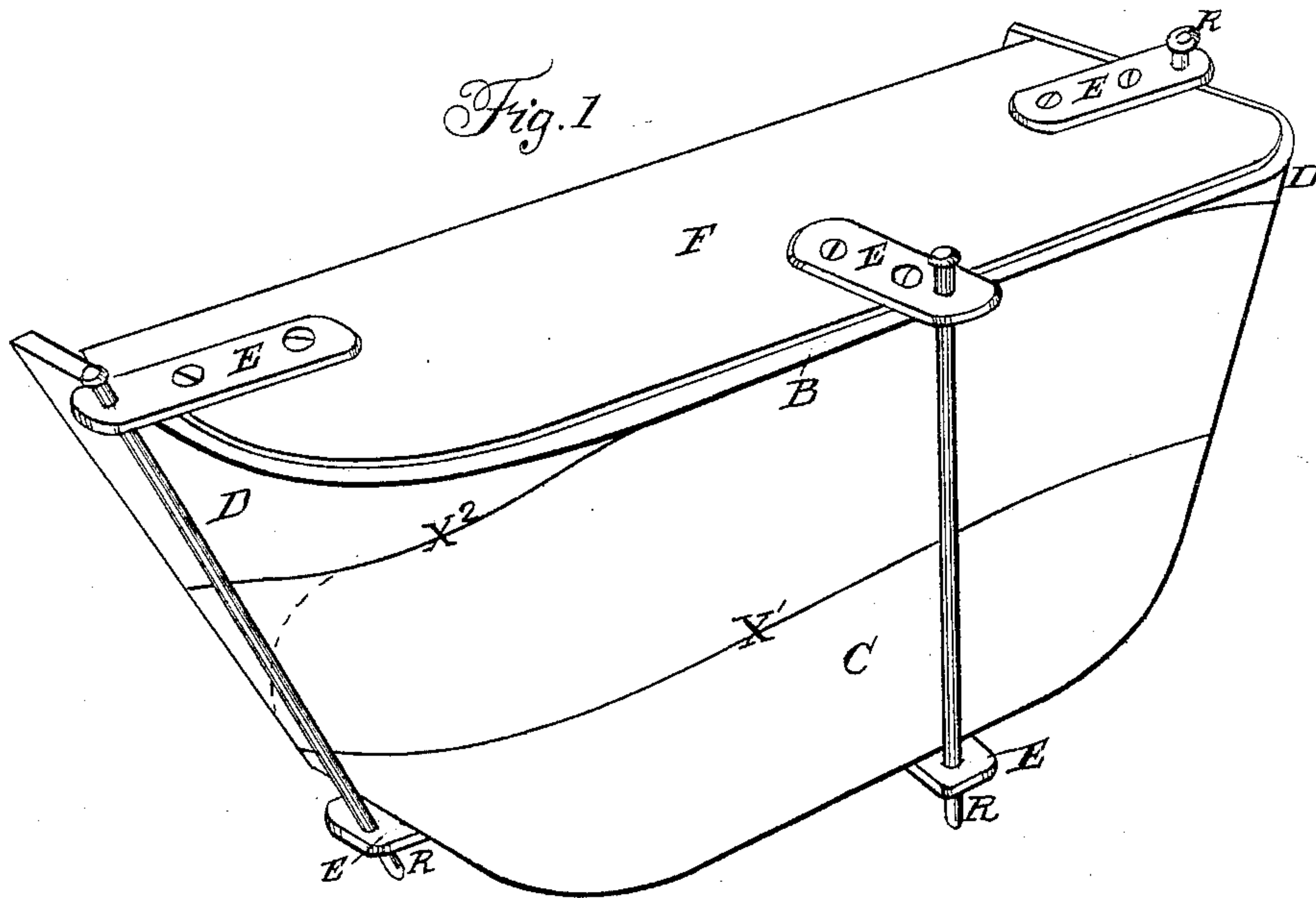


LATTIN & HUBBELL.

Carriage-Seat.

No. 63,535.

Patented Apr. 2, 1867.



Witnesses

Clinton T. Cook
George Johnson

Inventors

George Lattin
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United States Patent Office.

GEORGE LATTIN AND ALONZO F. HUBBELL, OF COLDWATER, MICHIGAN.

Letters Patent No. 63,535, dated April 2, 1867.

IMPROVEMENT IN SEATS FOR VEHICLES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, GEORGE LATTIN and ALONZO F. HUBBELL, both of the village of Coldwater, in the county of Branch, and State of Michigan, have invented a new and useful Improvement in the Construction of the "Back" and Sides to Seats of Vehicles, which we call a "Bent Reclining Back;" and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the rough bent back and bending form.

Figure 2 is a perspective view of the finished seat.

Our invention relates to a mode of constructing the back and sides of a vehicle seat by a combined bending and shaping of a single board in such manner that said back and sides may be formed without break, or join in one continuous length, with a graceful and easy-reclining angle; and the better to enable others skilled in the art to construct our invention, we will now proceed to describe it.

In our mode of construction there is a certain proportionate waste of material depending upon the degree of inclination compared with the vertical finished height. This is represented in fig. 1, which is designed to represent our first or bending process, in which an elm board, marked B, about three-quarters of an inch in thickness, and considerably wider than the finished back is designed to be is shown as bent around three sides of a wooden form, F, (the board having been previously well steamed,) by any of the ordinary appliances used for bending wood, and is held in close contact by any required number of rods, R, which pass through ear straps E fastened to the form aforesaid. We do not desire to confine ourselves in regard to shape, proportion, inclination of sides, or degree of curvature in rounding the corners, in the construction of the bending form, as it is designed to be the obverse of the back, fitted for and adapted to some one specific vehicle or another, and such details can only be determined as taste, adaptability, and the necessities of the bending process may require.

The main essential feature in the construction of our bending form is in bevelling the ends and rounded corners only, the side corresponding with the proper back of the seat being left square, for in our mode the angle of inclination is produced in this portion of the back by cutting away a section of the wood, so as to change the plane of the lower edge. In rounding the two corners of the form F, we usually work them to a quarter circle, of less radius at the bottom than at the top, in order that the curves at the corners of the back may gradually quicken towards the seat S. This improves the appearance of the curve and the seat also. When the bent board has been a sufficient length of time on its form to become perfectly set to the shape, we then remove it, and by the guide of suitable and flexible templets bent round it, or, better still, by placing it in an angular recess sunk in a frame, the upper side of which will represent the plane of the seat to which it is to be fastened, we mark around the lower line, x^1 , and saw out the section, marked C, that said line bounds, when a little truing up with the plane will make a close joint with the seat. The upper line, marked x^2 , is to mark the line of sawing, which will make the upper edge somewhat parallel with the lower, and also give to it such contour as may be deemed graceful and appropriate for the kind of vehicle it is designed for. The sections at D are then sawn away, and the upper front corners rounded, or otherwise shaped, when the seat back is ready for finishing, which may be done as indicated in the finished back, marked F, when the inner face is slightly curved so as to reduce the thickness at the upper edge, or it may be finished in any other usual style of seat backs of this kind. Our usual mode of attaching to the seat is by wood screws, (not seen,) the heads of which are countersunk, or let in the under side. Instead of a panel seat, as seen at S, a common board seat will answer every practical use, as it cannot warp or twist when attached to our solid bent backs.

We are aware that narrow rails for "open backs" have been made by steaming and bending, but no solid, flaring backs, such as ours are, of full depth, could be possibly made by any such mode as is practical, with the narrow rails aforesaid. In fact there are no backs for vehicle seats anywhere made, to our knowledge, that are of full depth, fastened directly to the seat, and having flaring sides and curved corners, except those made by separate back and end pieces connected at the corners by "blocking," and the curves of the corners formed by cutting away the wood. Our "seat backs," by the bending and shaping process herein described, are very

strong, require no angle-irons, and can be made, at a comparatively nominal cost, to rival in elegance of form those of the most expensive construction.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

The “bent reclining seat back” for vehicle seats, indicated at T, constructed and fashioned by the combined bending and reducing process, substantially as herein described and set forth.

GEORGE LATTIN,
ALONZO F. HUBBELL.

Witnesses:

CLINTON T. COOK,
GEORGE JOHNSON.