No. 646,290. Patented Mar. 27, 1900.

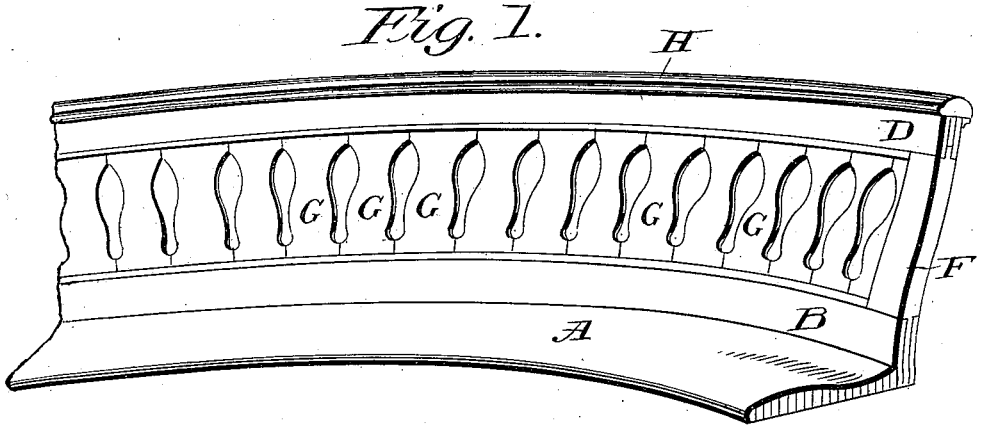
W. H. KRATZ.

PEW.

(Application filed Jan. 16, 1900.)

(No Model.)

Fig. 1.



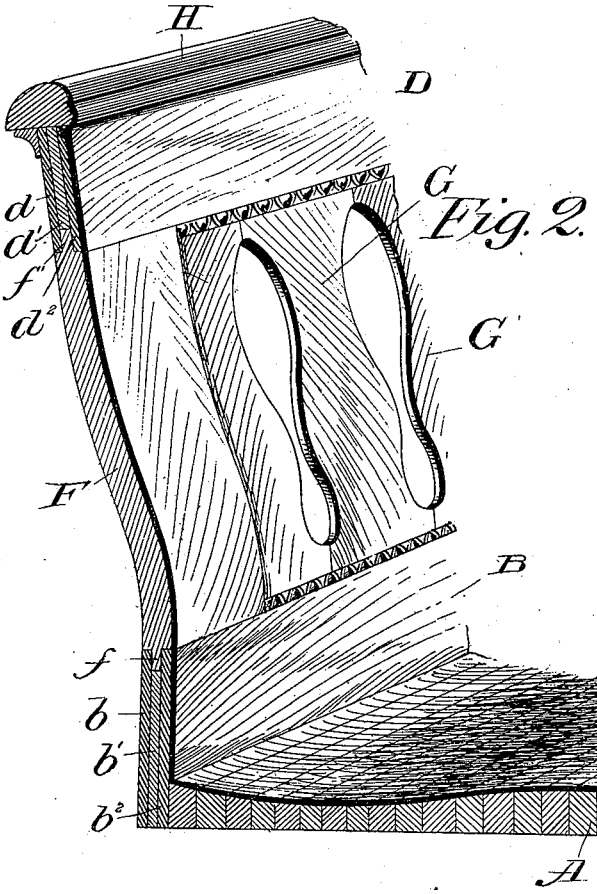


Fig. 2.

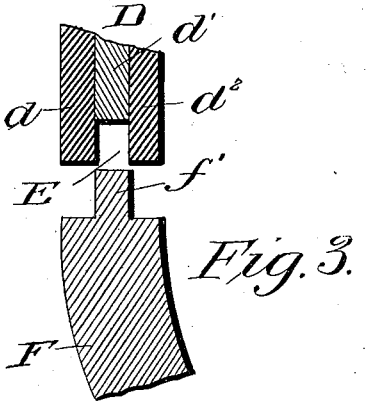
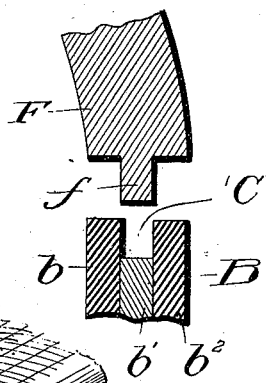


Fig. 3.



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PEW.

SPECIFICATION forming part of Letters Patent No. 646,290, dated March 27, 1900.

Application filed January 16, 1900. Serial No. 1,682. (No model.)

To all whom it may concern:

Be it known that I, W HARRY KRATZ, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Pews; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in pews, and more particularly to pews which are curved longitudinally—that is, in a horizontal plane—as well as vertically.

Great difficulty has been experienced in providing a pew that shall be comfortable to the back, and, owing to the impracticability of giving to the back of the pew the curvature in the two directions necessary and the inability to bend the wood to give it such requisite curves, a pew-back meeting the requirements that is capable of manufacture at a reasonable cost has not, to my knowledge, been heretofore produced. It has been proposed to construct a back having a circumflex curvature of two sections in layers, the one section forming the upper portion of the back and the other the lower section, a joint being formed at about the mid-height of the back where the two sections are joined. Another form of back has been that with a curve vertically but straight longitudinally. This is impracticable where it is desired to arrange the pew on the arc of a circle. I obviate all of these difficulties by my construction, in which I form the mid-length of the back portion of a piece formed with a compound curve and tenon the top and bottom ends thereof in vertical channels in vertically-disposed longitudinal pieces, preferably composed of layers, by preference three-ply. The central portion of the back between the end pieces is formed of open-work panels constituting a ventilated back. By this means I am enabled to construct a pew-back having the requisite curve both longitudinally and vertically in a practical manner, and one that shall be comfortable and durable and which shall retain its shape under all conditions.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view showing a portion of a pew constructed in accordance with my invention. Fig. 2 is an enlarged vertical cross-section through the same. Fig. 3 is a detail, on a still larger scale, in vertical section with the center piece broken in two.

Like letters of reference indicate like parts in the several views.

In constructing my pew the seat portion A may be of any well-known or preferred form of construction.

B is the lower longitudinal portion or rail. It is shown as constructed of three layers b, b', and b^2, parallel with each other and disposed in a vertical plane, the middle layer b' being of less height than the others to form the mortise or channel C to receive the tenon on the lower end of the central portion of the back. The layers forming this lower longitudinal part of the back may be arranged with their grains at different angles with relation to each other, if desired, to give greater strength, and the layers may be glued or otherwise firmly secured together. They may be of any desired height and of any preferred material and thickness.

D is the upper rail or longitudinal portion of the back. It is, like the lower rail, composed of layers d, d', and d^2, with the intermediate layer of less height than the others to form the channel E, as seen best in Fig. 3, to receive the tenon on the upper end of the central portion of the back, whether it be the end part or the panels between the end strips.

F is the intermediate part of the back at the end, constituting the end of the same, and this is formed upon the lines shown, constituting a compound or circumflex curvature, as seen best in Figs. 2 and 3. This is of a single thickness, bent in any of the well-known ways and formed at each end with a

tenon *f f'*, adapted to enter, respectively, the channels C and E of the top and bottom longitudinal strips, as shown, it being understood that these top and bottom strips, while straight vertically, are curved longitudinally to conform to the desired arc upon which the pew is to be built. Also it will be noticed that the tenons on the upper and lower ends of the intermediate parts are provided with vertical parallel sides, so as to fit snugly in the channels in which they are secured by glue or in any other desired manner.

G are the panels. They are curved upon the same lines as the end pieces and are provided with tenons held in the channels of the top and bottom longitudinal strips in the same manner as are the end pieces.

A cap H is affixed to the top to give a finish to the same, as indicated. Ornamental finish strips may be applied where desired—as, for instance, indicated in Figs. 1 and 2.

The panels are open-work, as indicated, to provide necessary ventilation, it being understood that the invention is not restricted to the particular form of panel herein illustrated.

It will be observed that while the upper and lower longitudinal rails are not curved vertically they stand in different vertical planes by reason of the vertical curvature of the intermediate portions and panels.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as new is—

1. A pew curved longitudinally and vertically and having top and bottom rails disposed in parallel vertical planes and an intermediate curved portion secured thereto, as set forth.

2. A pew having top and bottom rails curved longitudinally and disposed in vertical planes and provided upon their adjacent faces with channels, and an intermediate portion provided with a circumflex curvature and tenons secured in said channels, as set forth.

3. A pew having its back formed of a top and a bottom rail curved longitudinally but straight vertically in different vertical planes, and provided with channels, and an intermediate portion having a circumflex curvature vertically and curved longitudinally and provided with tenons disposed vertically and engaged in said channels, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

W HARRY KRATZ.

Witnesses:
S. A. TERRY,
A. M. PROCTOR.