

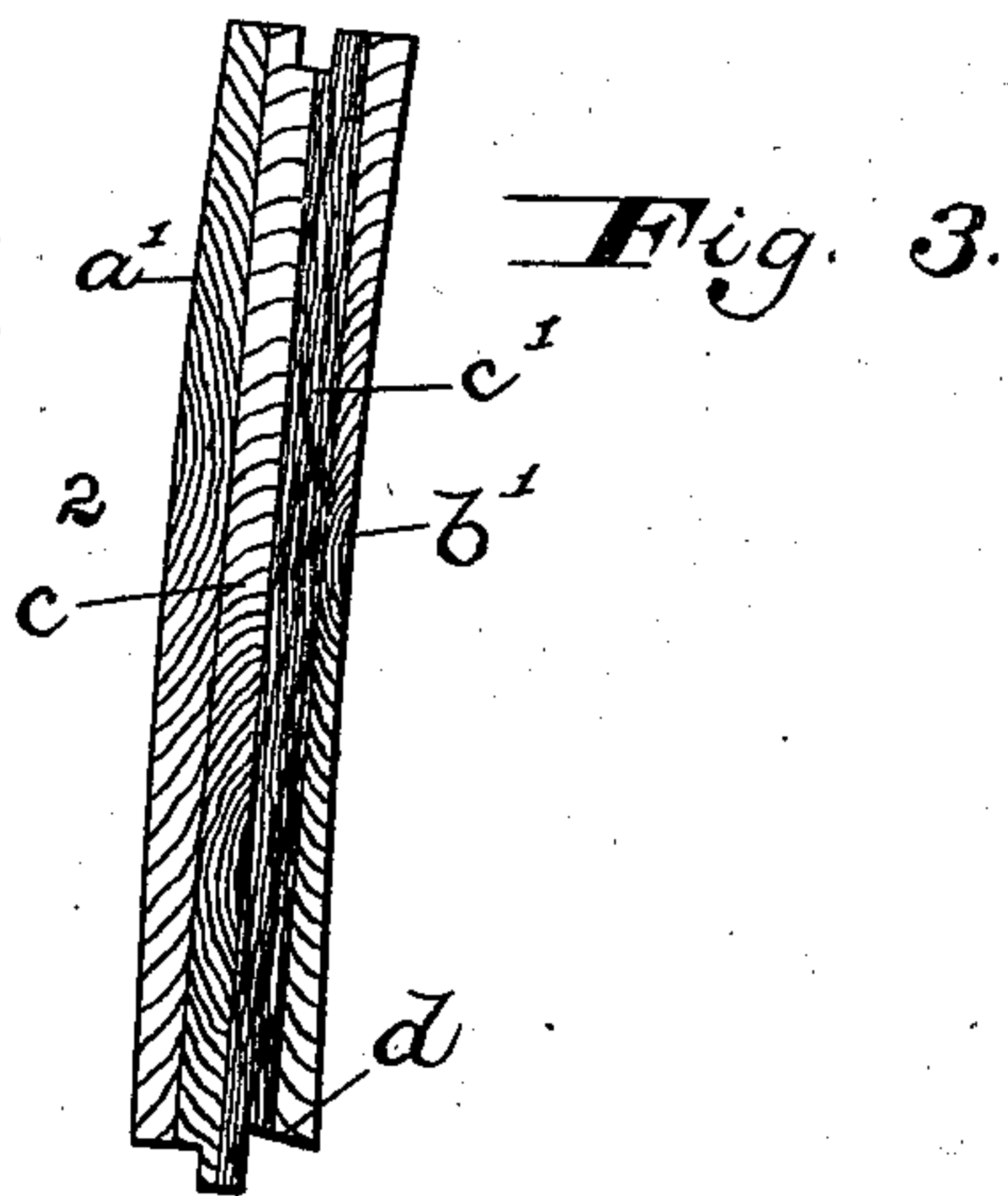
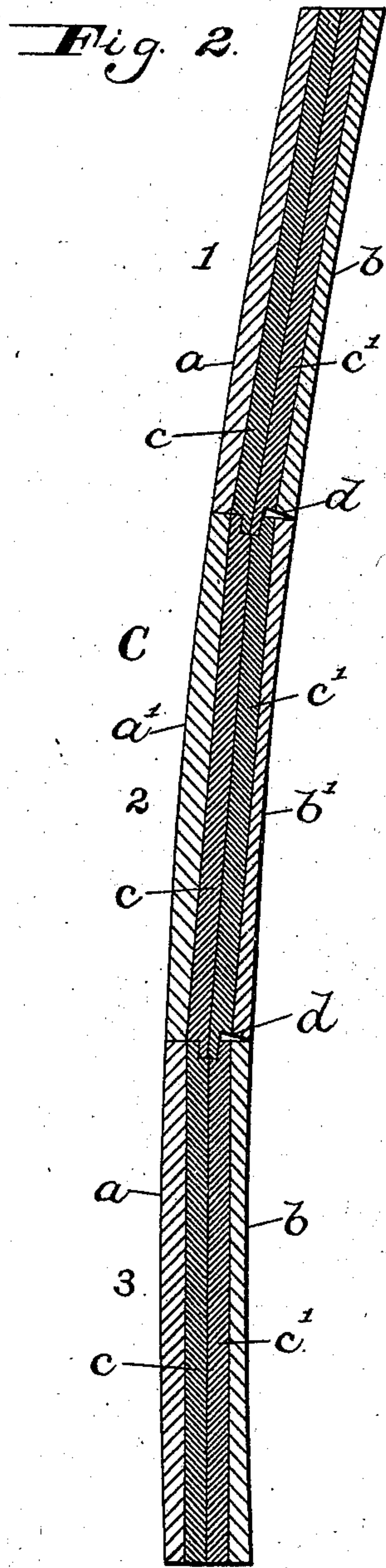
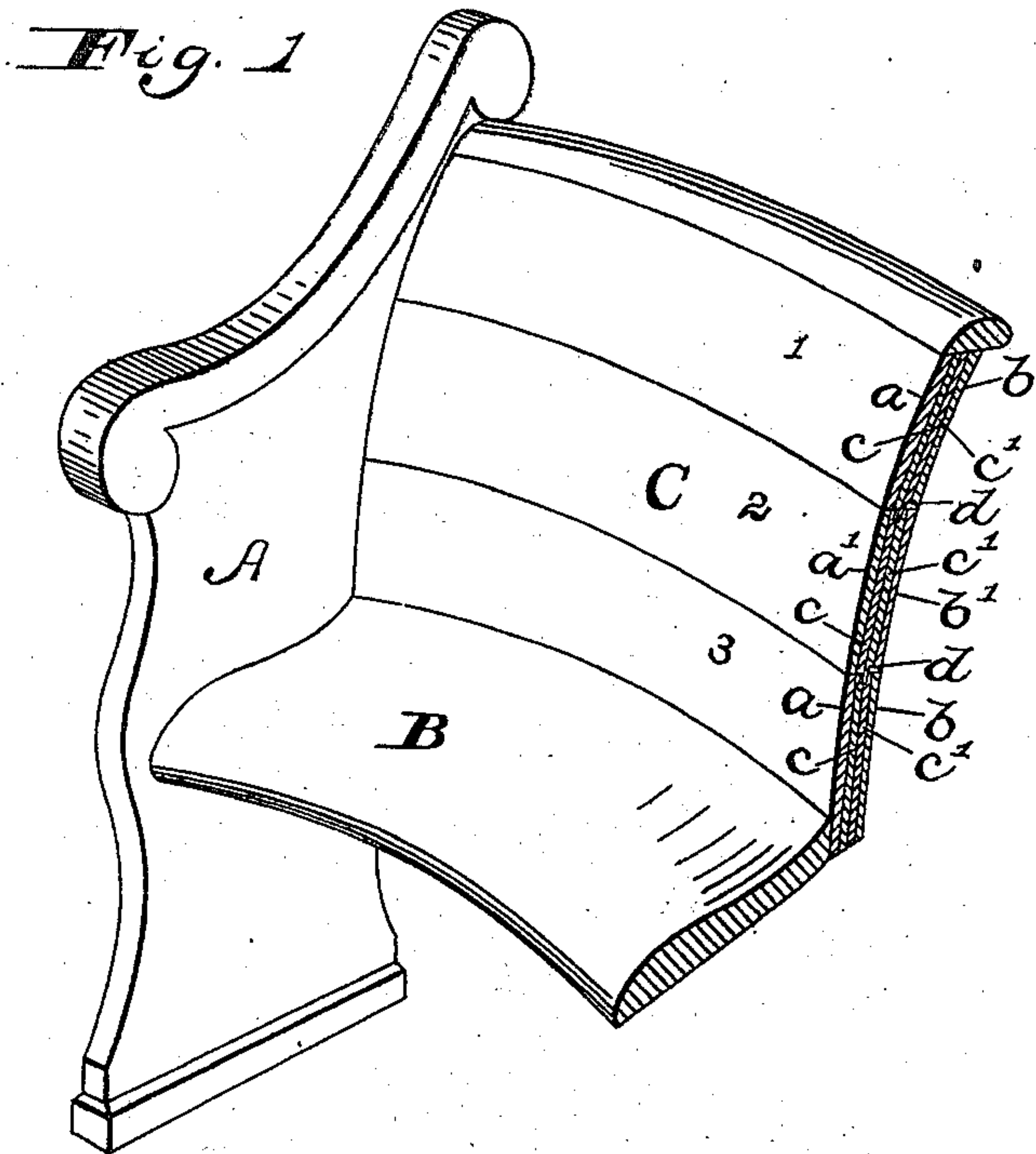
No. 724,189.

PATENTED MAR. 31, 1903.

E. T. KERVICK,
PEW.

APPLICATION FILED NOV. 6, 1902.

NO MODEL.



Witnesses.
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UNITED STATES PATENT OFFICE.

EMILY T. KERVICK, OF BALTIMORE, MARYLAND.

PEW.

SPECIFICATION forming part of Letters Patent No. 724,189, dated March 31, 1903.

Application filed November 5, 1902. Serial No. 130,138. (No model.)

To all whom it may concern:

Be it known that I, EMILY T. KERVICK, a citizen of the United States, residing at Baltimore, State of Maryland, have invented certain new and useful Improvements in Pews, of which the following is a specification.

This invention relates to certain new and useful improvements in pews of that class which are curved horizontally, assuming the arc of a circle from one end to the other, and whose backs in addition to being curved horizontally are also curved vertically or convexed on the front surface to conform to a person's back, whereby to render the pew-back comfortable.

Difficulty has heretofore been experienced in providing a pew with a back curved both horizontally and vertically for the reason that it is practically impossible to bend a single integral strip of wood in two directions—that is, both horizontally and vertically—and various devices have been designed to avoid this difficulty by substituting for the one piece or integral back a back constructed in sections or layers. For instance, one plan has been to construct the back of, say, six or seven longitudinal strips, each of which is curved horizontally, but is straight crosswise or has parallel sides vertically, and then build up the back by connecting said vertically straight crosswise strips, one above the other, at such slight angles with respect to each other that the complete back will present an appearance substantially simulating a vertical curve, but in reality being a succession of small angles and for this reason being unattractive and uncomfortable. Another plan has been to construct the pew-back in a number of sections from one end of the pew to the other and jointed together at their vertical side edges, the sections being at angles to each other and each section being curved vertically but straight horizontally. This plan is objectionable, because the pew is thereby divided practically into a number of compartments or seats, besides not having the neat unbroken appearance of a back curved both horizontally and vertically; and still another plan has been to construct the pew-back of an upper and lower rail each curved horizontally, but with straight flat surfaces vertically, said two rails being connected at the

ends by a comparatively narrow intermediate connecting-bar having a circumflex curvature in a vertical direction, and between the two rails and the said end bars the pew-back has a number of panels. Such a back is not only weak, owing to the numerous joints involved, but it has not the vertically-curved feature.

It is the object of my invention to improve this art by providing a pew-back which shall be curved both horizontally and vertically with practically unbroken curves, which shall be strong and durable, made up of comparatively few longitudinal sections, and which therefore shall present the appearance of a one-piece or integral back.

With this object in view the invention consists of certain constructions and arrangements of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of a pew whose back is constructed in accordance with this invention. Fig. 2 is an enlarged transverse or vertical section view of the pew-back. Fig. 3 is an end view of one of the longitudinal sections of the back, illustrating the different directions in which the grain of the several plies of wood extend.

Referring to the drawings, the letter A designates one end of the pew, which, with the seat B, may be of any well-known or preferred form of construction, and C designates the improved back.

The back C is constructed in the present instance of three longitudinal sections, designated 1, 2, and 3, one above the other. The upper section 1 and the lower section 3 in their make up and curvature are substantially alike, each comprising four plies or strips—namely, a front ply *a*, convex vertically on its outer face and straight vertically on its inner face; a rear ply *b*, concave vertically on its outer face and straight vertically on its inner face, and two filling-plies *c c'*, each of which has both faces perfectly parallel and vertically straight. The intermediate section 2 also comprises a plano-convex front ply *a'*, a plano-concave rear ply *b'*, and two straight vertical filling-plies *c c'*. The intermediate section 2 is connected to the upper and lower sections 1 and 3 by tongue-and-groove

5 joints, and it is to be especially noted that the shoulder *d* of each tongue, which is at the rear surface of the pew-back, is in a higher plane and is longer than the opposite shoulder at the front of the pew-back, and the adjoining surfaces are cut to such a relative bevel that a slight inclination rearwardly is given to one section with respect to the other, producing in the completed back a true vertically-con-

10 vex front surface and concave rear surface. Each longitudinal section and each ply of a section, it is to be understood, is bent longitudinally to produce from end to end a horizontal curve or arc of a circle of any desired radius, and the vertically convex and concave formations of the plies *a a'* and *b b'* are cut or planed by suitable woodworking tools before the longitudinal sections are joined.

15 In the manufacture of the pew-back here described and illustrated the sections 1, 2, and 3 are formed separately by first bending horizontally in the desired arc the four plies and then uniting them while bent by means of glue and clamping them together by ordinary wood-clamps. Each section is then dressed by a woodworking-machine to produce the desired front convex surface and rear concave surface and the tongues and grooves, and the three sections are then joined together and clamped in a suitable conformer which holds the three sections together in their proper form until perfectly dry. As shown in Fig. 3, the grain of the wood in one filling-ply extends crosswise of the grain of the other filling-ply of the same section, whereby to strengthen the formation and prevent subsequent warping. The outer plies may be of any desired hard wood—such as quartered oak, mahogany, or the like; but the filling-ply may be of a cheaper grade of wood, preferably a wood that is tenacious in its character.

20 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

45 1. A pew having a back comprising horizontally-extending sections bent to form a curve longitudinally and arranged one above the other and each section consisting of a

plurality of plies of which the front ply is cut vertically convex on its outer face and the rear ply is cut vertically concave on its outer face, whereby the said sections also form a continuous curve vertically, as set forth.

55 2. A pew having a back comprising horizontally-extending sections curved longitudinally and arranged one above the other and each section consisting of a front ply plano-convex vertically, a rear ply plano-concave vertically, and filling-ply, the front ply and rear ply being arranged respectively with their convex and concave face outermost, whereby the said sections also form a continuous curve vertically, as set forth.

65 3. A pew having a back comprising horizontally-extending sections curved longitudinally and arranged one above the other and each section consisting of four plies adhering together, namely, a front ply plano-convex vertically, with its convex surface outermost, a rear ply plano-concave vertically with its concave surface outermost, and two filling-ply having vertically-straight parallel or flat faces, whereby the said sections also form a continuous curve vertically, as set forth.

75 4. A pew having a back comprising horizontally-extending sections curved longitudinally and arranged one above the other and each section consisting of a front ply plano-convex vertically, a rear ply plano-concave vertically, and filling-ply, the front ply and rear ply being arranged respectively with their convex and concave face outermost, and said sections having a tongue-and-groove connection with each other, that shoulder of the tongue which is at the rear of the pew-back being longer than the other shoulder thereof, and the joining surfaces of the sections being cut to such a relative bevel that a slight inclination rearwardly is given to one section with respect to each other.

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

EMILY T. KERVICK.

Witnesses:

CHARLES B. MANN, Jr.,
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