D. C. MEEHAN.

WOODEN CORE AND METHOD OF MAKING THE SAME.

APPLICATION FILED DEC. 18, 1908.

974,984. Patented Nov. 8, 1910.

Fig. 1.

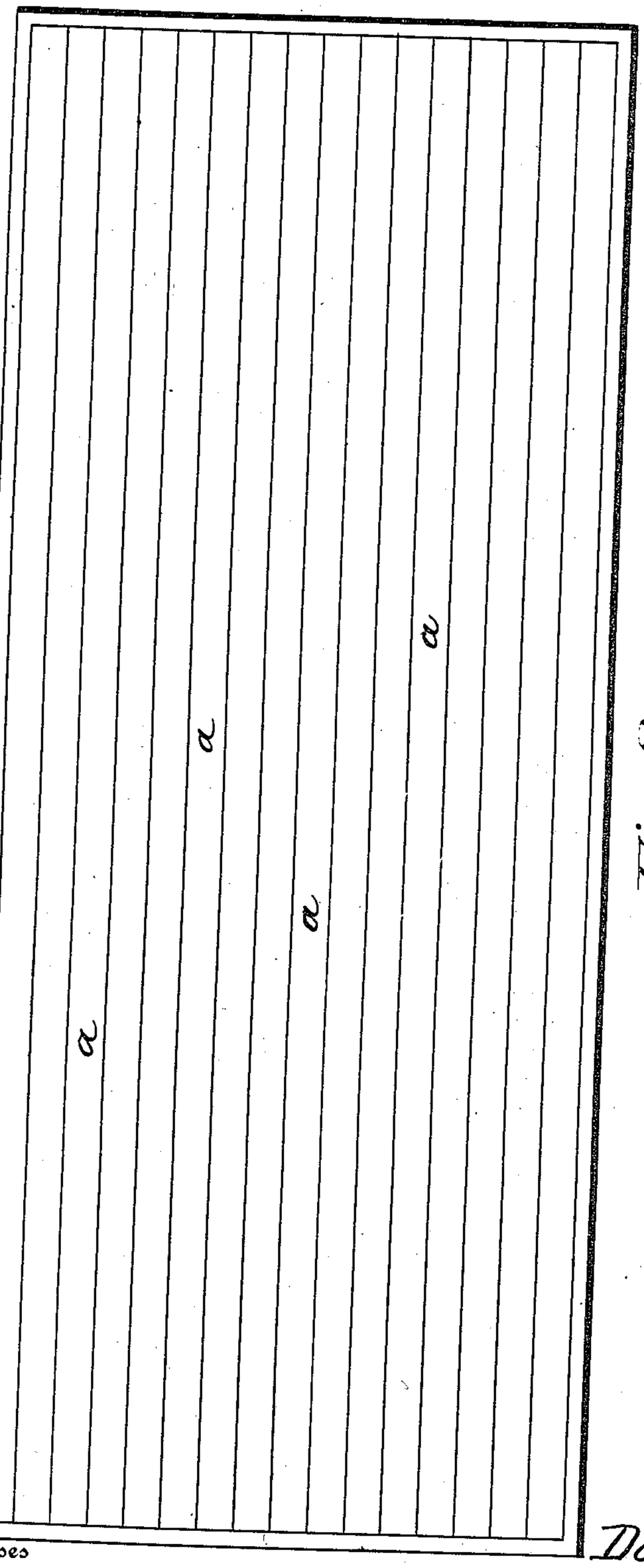
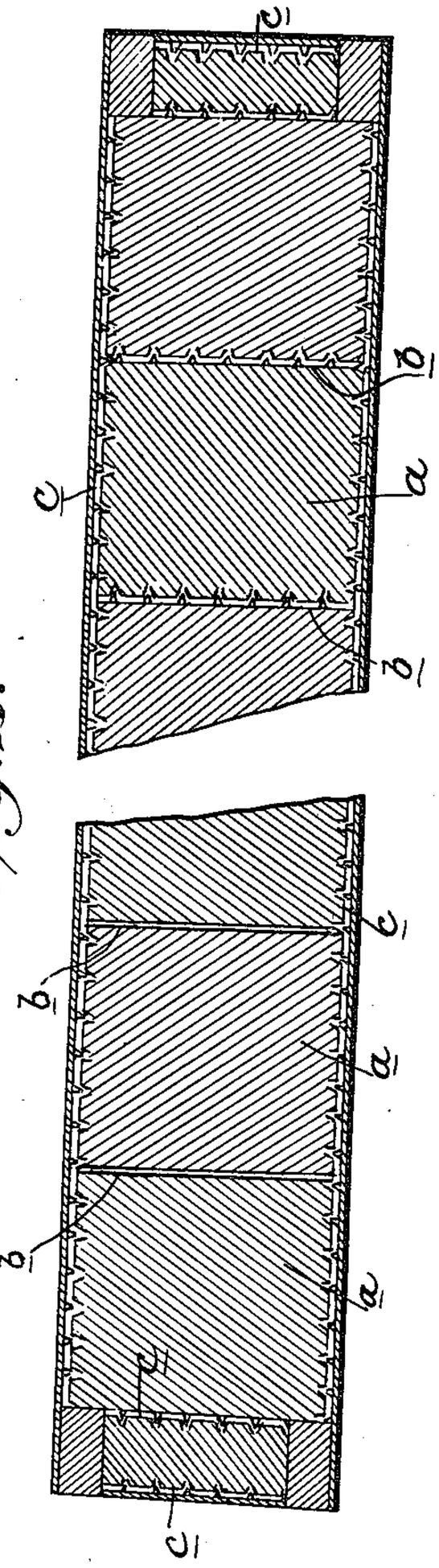


Fig. 2.



Witnesses

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WOODEN CORE AND METHOD OF MAKING THE SAME.

974,984. Specification of Letters Patent. Patented Nov. 8, 1910.

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To all whom it may concern:

Be it known that I, DAVID C. MEEHAN, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Wooden Cores and Methods of Making the Same, of which the following is a specification.

My invention relates to a wooden core composed of strips bonded together and with yieldable joints, and my invention consists, essentially, in interposing in the joint between the edges of adjacent strips a compressible cushioning material differing in physical character from the wood itself, and, preferably, of a fibrous nature, and which will refuse to rigidly join the more or less rebellious pieces in the core in their action against each other, therefore if one strip or piece of the core should in its expansion or shrinking act to contend against or relative to another and adjacent piece, the interposed compressible or fibrous material will serve to cushion the action or movement of said piece or produce a buffer therefor.

My invention also consists in applying an adhesive between the opposite sides of the interposed cushioning material whereby are formed glue joints, separated by a mass of fibers which produce the cushion before mentioned.

My invention further consists in constructing a core of strips and interposing in the joint between adjacent strips the cushioning material, glued or unglued, as before described, and indenting the fibrous material into the adjacent surface of a strip whereby the compressible or cushioning material becomes interlocked with the strips and is secured thereto.

In the accompanying drawings which serve to illustrate one method of carrying forward my invention:—Figure 1 represents a side view of a door core embodying my invention, Fig. 2 is an enlarged cross-sectional view of the same, partly broken away.

It is well known that the cores of doors, frames, wainscots, panels, furniture, etc., are commonly composed of strips glued together and having interengaging dowels and tenons on the edges. Such cores are expensive to make because of the wood usually selected for the purpose and also because of the care required to properly assemble the parts and to secure a perfect glue-joint between the strips. In constructing glue-joints, the glue is usually absorbed to substantially the point of nothingness between the two pieces to be joined, thus leaving the surfaces in such close contact that the contrary grains operate against each other to the extent of often breaking every joint in the core. To obviate this, the workman is obliged to carefully select strips of what might be termed harmonious grains to be joined together, discarding many pieces that would bring a "heart" close to one having a prominent edge or outer grain; keeping the long grain from contact with the cross-grain, etc. Such methods conduce both to the original cost and a waste of material.

In my invention, I am permitted to join strips *a*, of wood whose grains may run in contrary directions and to preserve a certain independence between the strips so that each piece has but little strength in itself, when swelling or shrinking, and cannot become so boisterous, so to speak, in its own sphere as to influence the assembled strips as a whole. Whatever movement one or more of the strips may have is compensated for by the compressible or cushioning action of the material *b*, which I introduce in the joint for the purpose of maintaining the faces of adjacent strips out of actual contact, yet so connecting these faces that the strips may be held in their assembled position. Over the strips when assembled I may place the covering or sheathing *c*, which is indented into the surfaces of the core at numerous points to form the interlocks before mentioned. This sheathing or outer covering in such case serves as the essential means for bonding the strips and holding them from displacement, therefore as far as the cushioning effect in the joint is concerned, the material therein used may not, necessarily, have its opposite sides glued to the opposed faces of adjacent strips. Also, if desired the cushioning material may be indented into the edges of the adjacent strips with which it is associated, in the same manner that the outer covering or sheathing is indented into the outer sides of the core. In other words, any means may be employed to secure the cushioning material *b*, in place in the joint between adjacent strips, and which material obliges each part or strip of the core to act independent of every other part and thereby prevent the combined action of numerous strips that is so disastrous

in core-construction. The fact that the cushioned joint is made of material different from the wood, having different tendencies in the way of expansion and contraction, will prevent it acting in sympathy with the wood, and while the interposed material is thin and perhaps has but little resilient quality, there will not be much required, because the action in each single piece of the core would be equally hard to measure.

Any means such as described or the equivalent thereof that will absolutely separate the woods of the core will prevent the combined action that always results in breaking the core itself and anything in the way of a veneer or other surface finish. Also, it is within the scope of my present invention to omit the indented sheathing or covering on the outer surfaces of the core as I may secure a veneer directly to the faces of the core; I may, also, cover the core with metal or give it any other external finish, but this forms no essential part of the present invention which relates to the core construction only.

I have been accustomed to first cover the wood with a compressible fibrous material, and then rip it into the proper widths, thus leaving strips having one side covered to be attached to the next one not covered; however I do not limit myself to any precise manner of placing or securing the fibrous material in place so that it may serve as a yieldable joint for core strips.

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

1. The method herein described of constructing a wooden core which consists, essentially, in assembling core pieces in parallel series and interposing in the joint between adjacent pieces, a compressible cushioning material differing in character from the wood and which has the capacity of adhesively joining opposed wood surfaces while allowing one surface to move relatively to the other.

2. The method herein described of constructing a wooden core which method consists, essentially, in assembling separate core pieces in parallel series and placing between the adjoining surfaces of the pieces a cushioning material of sheet form differing in character from the wood and having the capacity of adhesively joining opposed wood surfaces, and that will bodily creep and fail to rigidly join the opposed movable wood surfaces, whereby the joint serves to absorb expanding or shrinking movement of the wood and prevent the transfer of such movement from one core piece to another.

3. A wooden core consisting of parallel pieces having a strip of flexible material introduced between the edges of adjacent strips and glued thereto, said material being of a fibrous character whereby the portion between opposite glued sides will respond to the shrinking and swelling movements of the core pieces and will absorb the same, and prevent the movement of one piece being communicated to an adjacent piece.

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

DAVID C. MEEHAN.

Witnesses:
CHAS. E. BELCHER,
JOHN A. CONNOR.