A. N. WEBB.

FURNITURE JOINT FOR WOODEN STRUCTURES.

APPLICATION FILED AUG. 24, 1907.

909,720. Patented Jan. 12, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

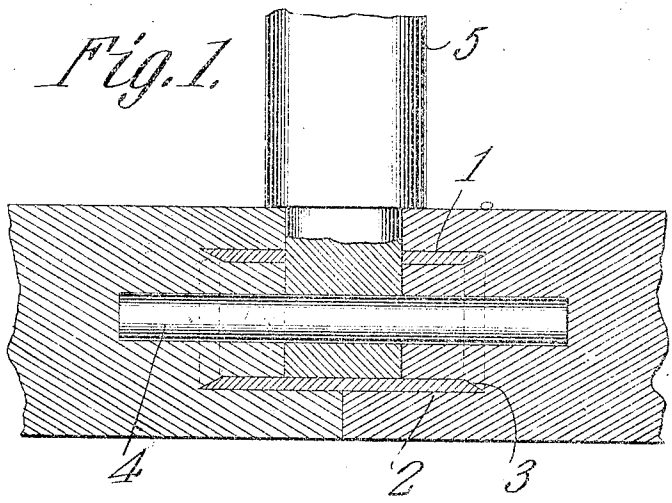


Fig. 2.

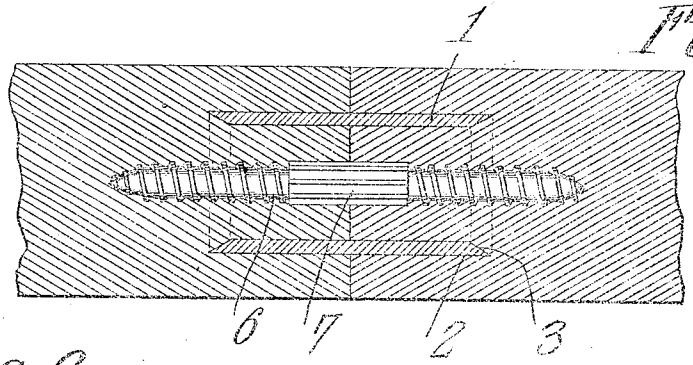
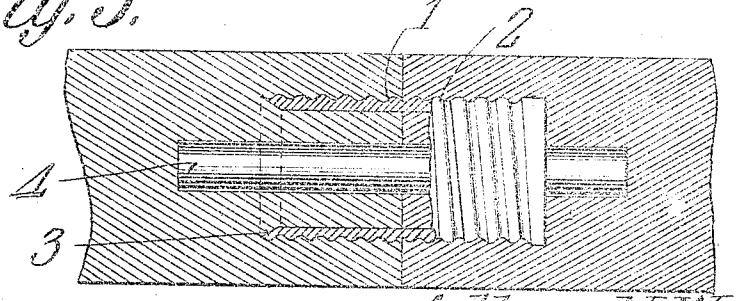


Fig. 3.



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2 SHEETS—SHEET 2.

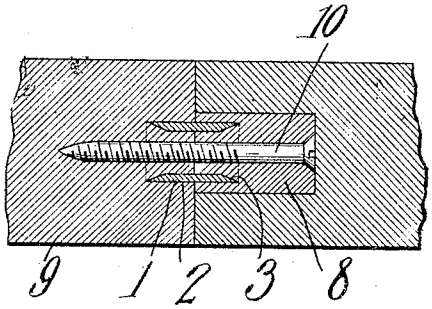


Fig. 4.

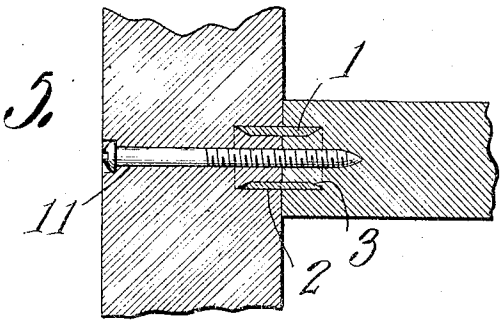
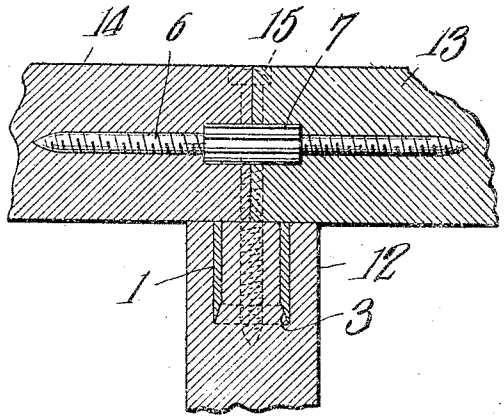


Fig. 5.

Fig. 6.



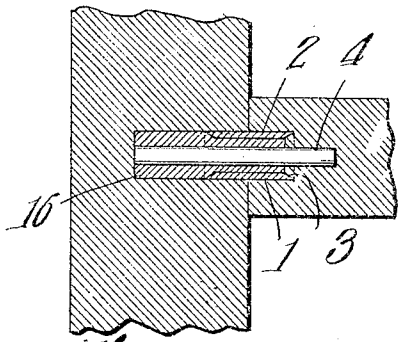


Fig. 7.

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UNITED STATES PATENT OFFICE.

ARTHUR N. WEBB, OF YOUNGSVILLE, PENNSYLVANIA.

FURNITURE-JOINT FOR WOODEN STRUCTURES.

No. 909,720. Specification of Letters Patent. Patented Jan. 12, 1909.

Application filed August 24, 1907. Serial No. 390,068.

To all whom it may concern:

Be it known that I, ARTHUR N. WEBB, a citizen of the United States, residing at Youngsville, in the county of Warren and State of Pennsylvania, have invented a new and useful Furniture-Joint for Wooden Structures, of which the following is a specification.

This invention has relation to joints for wooden structures such as furniture and the like and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a simple and effective means for joining together apposed pieces of wood of a structure in such manner that they will be firmly held together without danger of splitting.

The means constituting the joint consists of a hollow tubular member having the inner surfaces of its ends chamfered, whereby, edges are formed at the outer surface of the said member. Annular mortises are cut in the apposed pieces of wood and the end portions of the tubular member are inserted in and seated in the said mortises. The dowel screw or pin passes longitudinally through the tubular member and engages the apposed pieces of wood. The said tubes may be truly cylindrical in contour or its periphery may be provided with spirally disposed corrugations which afford friction surface for entering the grain of the wood.

In the accompanying drawing:—Figure 1 is a sectional view of apposed pieces of wood secured together by the joint, and illustrating a spoke or leg connected with the said pieces of wood at the point of juncture. Fig. 2 is a sectional view of apposed pieces of wood showing a modified form of joint. Fig. 3 is a sectional view of apposed pieces of wood showing a modified form of the tubular member of the joint. Figs. 4, 5, 6 and 7 are detailed sectional views of other modified forms of the joint.

The means for connecting the apposed pieces of wood together consists of a tubular sleeve 1 which is inserted at its opposite end portions in the said pieces of wood. Circular mortises 2 having been previously cut in the wood for the reception of the said sleeve. The inner end portions of the sleeve are chamfered, as at 3, and terminate in edges located at the outer surfaces of the said sleeve. These edges are adapted to be driven into, and securely seated, in the inner end portions of the mortises 2.

As illustrated in Fig. 1 of the drawing, a dowel pin 4 passes centrally and longitudinally through the sleeve 2 and is embedded at its end portion in the apposed pieces of wood which are joined together. The said dowel pin also passes through the tenon of the spoke 5, or leg, as the case may be, the said tenon passing laterally through the side of the sleeve 2 and being housed within the same.

In the form of the invention as illustrated in Fig. 2, a double pointed screw 6 is used as a dowel and is provided at an intermediate portion with a surface 7 upon which a wrench may be operated.

In the form of the invention as illustrated in Fig. 3, the exterior of the sleeve 1 is provided with a volute corrugation which is adapted to become embedded in the grain of the wood and more firmly secure the parts together. In the form of the invention a dowel pin 4 is illustrated although a dowel screw may be employed if desired.

In the form of the invention, as shown in Fig. 4, the sleeve 3 is used for the purpose of securing a tenon 8 to the piece 9. The screw 10 being passed through the tenon 8, the sleeve 3 and forced into the piece 9. The tenon 8 is then inserted in a mortise provided in the piece 10.

In the form of the invention as shown in Fig. 5, the sleeve 1 is illustrated as securing two pieces of wood together at a right angle to each other and a screw 11 is passed through one of the pieces and the sleeve into the other piece.

In the form of the invention as shown in Fig. 6, the sleeve 1 is embedded in the piece 12 which is attached to the pieces 13 and 14 at the point where they are drawn together. The screw 15 (indicated by dotted lines) passes through the sleeve 1 and is embedded in the piece 12 and is located at the joint between the pieces 13 and 14 while the dowel screw 6 holds the pieces 13 and 14 together. The intermediate roughened portion 7 thereof may be used for affording surface for glue to adhere to the screw.

In the form of the invention as shown in Fig. 7, the dowel pin 4, passes through the tenon 16 which is located in the sleeve 1 and which in turn holds together the wooden pieces at an angle to each other.

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

A joint for wooden structure comprising apposed pieces having mortises, a cylindrical sleeve fitting snugly along the entire length of the walls of the mortises and having internal beveled ends which are forced into the material of the pieces at the ends of the mortises, and a dowel member passing centrally and longitudinally through the sleeve and being embedded in the apposed pieces, and having its ends projecting beyond the beveled ends of the sleeve, but terminating short of the faces of the structure.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ARTHUR N. WEBB.

Witnesses:
PETER F. BECKENBACH,
F. L. BALDWIN.