J. FORSTER.

LOCK JOINT.

APPLICATION FILED AUG. 25, 1920.

1,393,679. Patented Oct. 11, 1921.

Fig. 1.

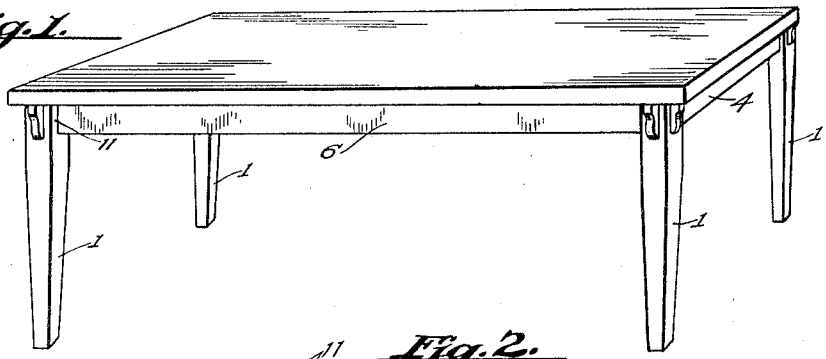



Fig. 2.

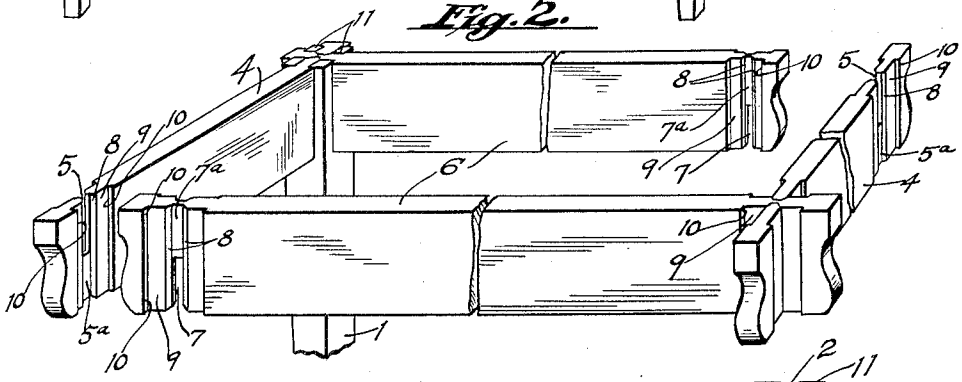



Fig. 4.

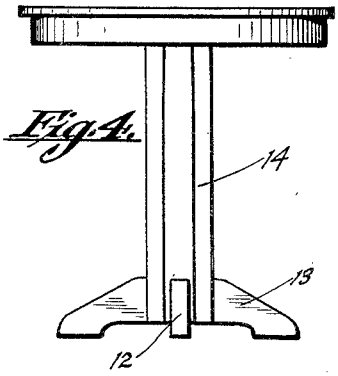



Fig. 5.

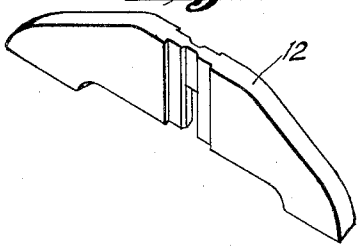



Fig. 3.

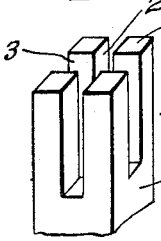



Fig. 6.

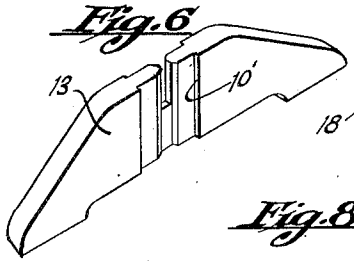



Fig. 8.

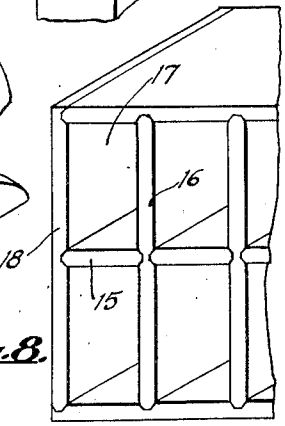
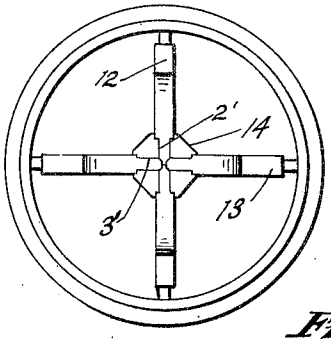



Fig. 7.




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# UNITED STATES PATENT OFFICE.

JOHN FORSTER, OF LOS ANGELES, CALIFORNIA.

## LOCK-JOINT.

1,393,679. Specification of Letters Patent. Patented Oct. 11, 1921.

Application filed August 25, 1920. Serial No. 405,809.

*To all whom it may concern:*

Be it known that I, JOHN FORSTER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Lock-Joints, of which the following is a specification.

This invention relates to lock joints applicable to the construction of table frames, shelving and the like.

It is the object of the invention to provide a joint whereby crossed members will be positively locked relative to one another and by means of which a third member may also be locked relative to the crossed members.

The invention will be readily understood from the following description of the accompanying drawings, in which—

Figure 1 is a perspective view of a table construction embodying the improved lock joint.

Fig. 2 is a perspective view showing in detail the construction of the locked joints for elements of the table frame.

Fig. 3 is a perspective view of one of the table legs.

Fig. 4 is a side elevation of a different form of table construction embodying the improved lock joint.

Figs. 5 and 6 are perspective views of the crossed base members for the table showing the improved lock joint connection between the same.

Fig. 7 is a bottom plan view of the type of table shown in Fig. 4.

Fig. 8 is a perspective view of shelving having the crossed members forming the same connected by the improved lock joint.

In the form of the invention illustrated in Figs. 1, 2 and 3, table legs 1 are shown as straight posts having slots 2 and 3 cut crosswise of each other from their upper ends. End cross pieces of the table frame are shown at 4 and side cross pieces are shown at 6. The cross pieces 4 have slots 5 cut from their upper edges substantially half way across the width, and recesses $5^a$ extending the remaining distance across the width. The side pieces 6 have slots 7 cut from their lower edges substantially half way across the width, and recesses $7^a$ extending the remaining distance across the width.

The side edges of slots and recesses 5 and $5^a$ and also the side edges of slots and recesses 7 and $7^a$ are beveled as shown at 8 so that the cross pieces 6 may be slipped over cross pieces 4 with the slots and recesses in alinement, the portions of each cross piece at opposite sides of the slot therein being received at opposite sides of the recessed portion of the other cross piece. By this arrangement each of the cross pieces is positively positioned and held against displacement by the contact of the beveled edges of the cross pieces as well as the positioning of the recessed portion of one cross piece within the slotted portion of the other cross piece.

The sides of the cross pieces at opposite side edges of slots and recesses 5—$5^a$ and 7—$7^a$ are recessed as shown at 9 in order to provide shoulders 10. The recessed portions of crossed side pieces, as thus arranged, are adapted to receive the end pins 11 of a table leg formed by the crossed slots 2 and 3, the crossed side pieces being received in the crossed slots of the table leg. The construction as thus set forth forms a positive positioning means for the table legs relative to the side members 4 and 6, since the table legs will abut against shoulders 10 upon the cross pieces.

In the form of the invention illustrated in Figs. 4, 5, 6 and 7, the same lock joint is employed for connecting the crossed pedestal bases 12 and 13, and the pedestal 14 is provided with crossed slots 2′ and 3′ in its end, the crossed pedestal bases being received in said slots as previously described with the pedestal held against displacement by abutting against shoulders 10′ formed upon the pedestal bases.

In the form of the invention illustrated in Fig. 8 the improved lock joint is employed in the construction of shelving. For this purpose boards 15 may be made up in any desired lengths and widths and provided at spaced intervals with slots and recesses extending across the width of the same, as previously described. Boards 16 of desired sizes are arranged crosswise of boards 15 in order to form the pigeon holes 17, the boards 16 being provided across their widths with slots and recesses arranged to coöperate with the slots and recesses of boards 15 so that locking joints, as previously described, may be formed between said crossed boards. The shelving as thus constructed may be mounted in any suitable frame 18.

The improved lock joint thus provided may be employed either in knock down constructions without using glue, nails or other fastening means, or may be employed in a

fixed construction where the various parts, after assembling, are suitably secured together by any suitable fastening means.

Various changes may be made without departing from the spirit of the invention as claimed.

What is claimed is:

1. A lock joint construction comprising crossed members each having a recessed portion and a slot in longitudinal alinement, the side edges of the recesses and slots being beveled so that the recessed portion of each member may be received within the slot of the other of said crossed members.

2. A lock joint construction comprising crossed members each having a recessed portion and a slot in longitudinal alinement, the side edges of said recesses and slots being beveled so that the recessed portion of each member may be received within the slot of the other of said crossed members, said crossed members having shoulders beyond their crossing points, and a member connected to said crossed members and slotted crosswise from the end so as to receive said crossed members within said slots with the portions of said member at the sides of said slots fitting against said crossed members and received against said shoulders.

In testimony whereof I have signed my name to this specification.

JOHN FORSTER.