No. 727,862. PATENTED MAY 12, 1903.

W. L. TAYLOR.

LOCK JOINT FOR COLUMNS.

APPLICATION FILED JAN. 15, 1903.

NO MODEL.

Fig. 1.

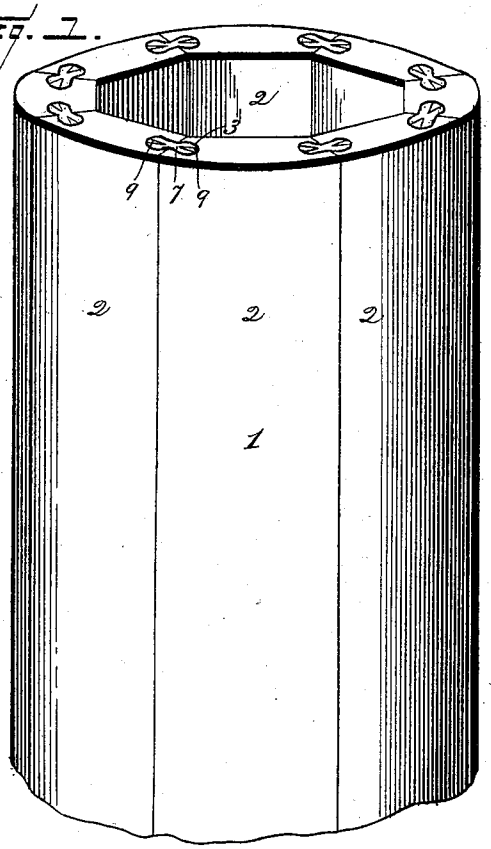



Fig. 3.

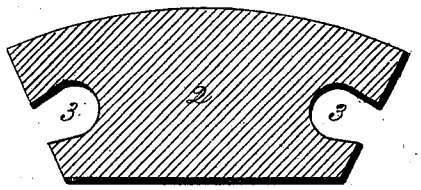



Fig. 4.

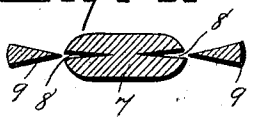
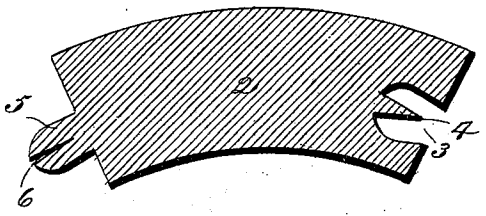



Fig. 5.



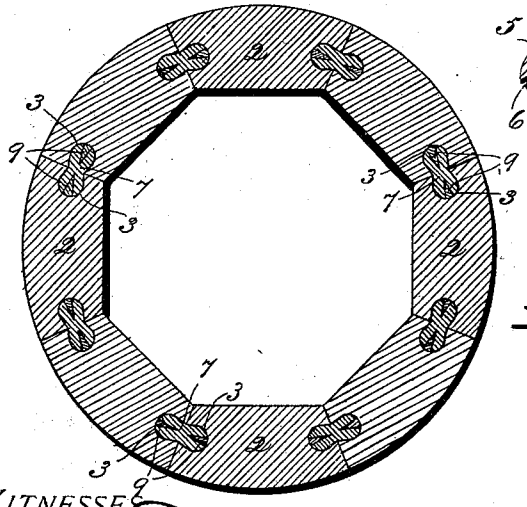




Fig. 2.

WITNESSES:

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No. 727,862. Patented May 12, 1903.

# UNITED STATES PATENT OFFICE.

WILLIAM L. TAYLOR, OF ELMIRA, NEW YORK.

## LOCK-JOINT FOR COLUMNS.

SPECIFICATION forming part of Letters Patent No. 727,862, dated May 12, 1903.

Application filed January 15, 1903. Serial No. 139,128. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM L. TAYLOR, a citizen of the United States, residing at Elmira, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Lock-Joints for Columns; 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 figures of reference marked thereon, which form a part of this specification.

My invention relates to wooden columns, and has for its object to provide a novel means of securing the sections together.

A further object of my invention is to provide a device for this purpose which is particularly simple in construction and easy in any position of operation.

With these objects in view my invention consists in the novel construction of my locking-piece in combination with the column-sections.

My invention also consists in certain other novel features of construction and in combination of parts, which will be first fully described and afterward specifically pointed out in the appended claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of part of a column constructed in accordance with my invention. Fig. 2 is a plan of the same. Fig. 3 is a detail plan of one of the column units or sections. Fig. 4 is a detail view of one of my locking pieces and wedges, and Fig. 5 shows a modification of Fig. 3.

Like numerals of reference indicate the same parts throughout the several figures, in which—

1 indicates a column made up of units or sections 2, so beveled on their contiguous faces that they meet perfectly, form either a round, hexagonal, or octagonal column, the number of sides or shape of the column having no bearing upon my invention.

In my preferred construction I provide the units or sections 2 with inwardly-tapering grooves 3, preferably with rounded bottoms the entire length of said units or sections. In the modification, however, shown in Fig. 5 I provide a groove 3, having a wedge-shaped tongue 4 in the center thereof, and on the opposite face of said unit or section I provide a tongue 5, provided with an inwardly-tapered slot or groove 6.

In connection with my preferred form (shown in Fig. 3) I employ a locking-piece 7, having rounded ends and provided thereat with inwardly-tapering grooves or slots 8, within which the wedges 9 enter.

Having thus described the several parts of my invention, its operation is as follows: The wedges 9 are started in the locking-pieces 7, and the same are inserted in the groove 3 in the units or sections 2. When in this position, the units or sections are pressed together, which forces the wedges 9 into the grooves 8 in the locking-pieces 7, thereby expanding the ends of said locking-pieces to such a degree that they cannot be withdrawn, the effect of which is the formation of a perfect lock-joint between the units or sections. In order to more increase the friction between the wedges and the locking-pieces, the said wedges may be serrated, so as to cause a biting contact between the same and the locking-pieces, although it is not thought that this precaution will be necessary, as there is no tendency for the wedges to become displaced, for the reason that the greater the strain tending to separate the units or sections the tighter the wedges will be gripped by the locking-pieces. Furthermore, the rounded bottoms of the grooves when coming in contact with the rounded edges of the locking-pieces have a tendency to cause said rounded ends of the locking-pieces to press toward each other and exert the most pressure at the rear of the wedge, whereby the wedge is more firmly held in the groove of the locking-piece. Were the corners of the locking-piece and the groove in the column unit flat at its bottom, the pressure on the sides of the wedge would be uniform, which would allow it to be disengaged much easier. The same principle is carried out in my modification shown in Fig. 5, with a slight change in construction, a tongue being formed on the units or sections and a wedge formed in the groove 3 to expand the said tongue within the groove.

Having thus described my invention, I do not wish to be understood as limiting myself

to the exact construction herein set forth, as various changes may be made therein which would fall within the limit and scope of my invention, and I consider myself clearly entitled to all such changes and modifications.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a lock-joint for columns the combination of the sections provided with inwardly-extending tapering grooves having rounded bottoms in the contiguous faces thereof, locking-pieces having rounded corners provided with tapering grooves in the ends thereof, adapted to enter the grooves in said sections, wedges adapted to enter said grooves in said locking-pieces to expand the same within said grooves in said sections.

2. In a lock-joint for columns, the combination of the sections of a groove in each section, locking means to enter said groove, and means within said groove for expanding said locking means.

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

WILLIAM L. TAYLOR.

Witnesses:
BRYAN MAYLAN,
JAS. WYNNE.