

H. J. BEABES.
WOODEN COLUMN.
APPLICATION FILED MAR. 24, 1914.

1,126,351.

Patented Jan. 26, 1915.

FIG. 1.

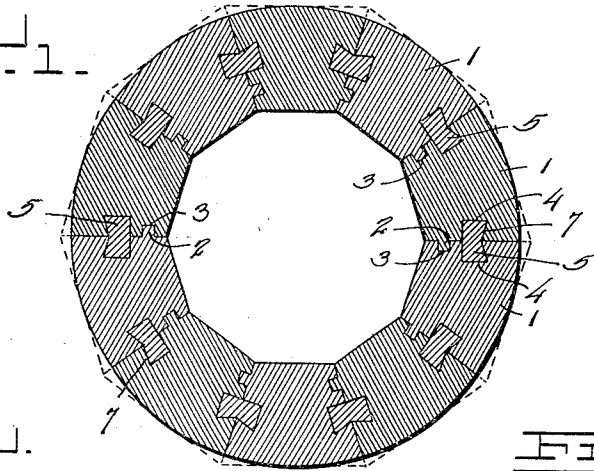


FIG. 2.

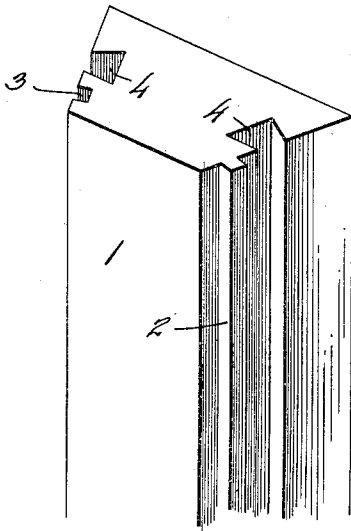


FIG. 3.

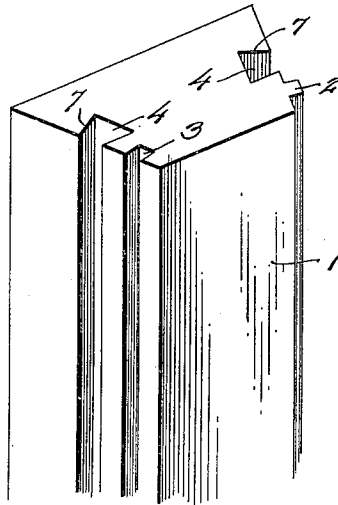
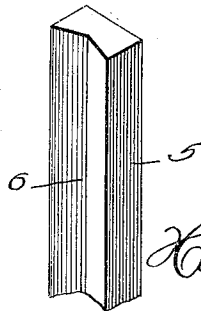


FIG. 4.



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HARVEY J. BEABES, OF SOMERSET, PENNSYLVANIA, ASSIGNOR TO SOMERSET DOOR AND COLUMN COMPANY, OF SOMERSET, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

WOODEN COLUMN.

1,126,351.

Specification of Letters Patent.

Patented Jan. 26, 1915.

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To all whom it may concern:

Be it known that I, HARVEY J. BEABES, a citizen of the United States, residing at Somerset, in the county of Somerset and State of Pennsylvania, have invented certain new and useful Improvements in Wooden Columns, of which the following is a specification.

This invention relates to hollow built-up wooden columns and has for its object to provide certain new and useful improvements whereby to facilitate the assemblage of the column sections; to provide for keying together adjacent column sections; to provide for effectively maintaining the column sections in their proper relations while keying the same; to provide for drawing together the sections at their outer edges, under any tendency to separate by reason of shrinkage, climatic conditions or effects of the weather.

With these and other objects in view, the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size and minor details may be made, within the scope of the claims, without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings: Figure 1 is a cross-sectional view of a built-up wooden column embodying the features of the present invention. Fig. 2 is a fragmentary perspective view of the tongued edge of one of the column sections. Fig. 3 is a fragmentary perspective view of the grooved edge of one of the column sections. Fig. 4 is a fragmentary perspective view of one of the keys.

Like characters of reference designate corresponding parts in each of the figures of the drawing.

The present column is made up of a plurality of longitudinal column sections, each of which is a duplicate of the other and therefore a description of one section will be sufficient.

Each column section, designated 1, is of a length equal to that of the column, and is wedge-shaped in cross-section, tapering toward the inner face of the section or to-

ward the longitudinal center of the column. The meeting edges of adjacent column sections are disposed substantially radially with respect to the column, and have a tongue and groove connection, so that one of the meeting edges of a column section is provided with an integral longitudinal tongue 2, preferably located adjacent the inner face of the section, while the opposite meeting edge of the same section is provided with a longitudinal groove 3, corresponding in cross-sectional shape and dimensions to that of the tongue. By this arrangement, when a plurality of column sections are assembled in a circular series, the tongue of each section fits the groove of the next adjacent section, whereby the several sections are held in their proper relation after being assembled.

In addition to the tongue and groove connection, I also propose to key together the adjacent sections. This keying of the sections is carried out by the provision of registering and corresponding keyways 4 formed in the meeting edges of adjacent column sections, and into such keyways is driven a key 5 which preferably extends throughout the length of the column. The outer face of the key is provided with a substantially V-shaped groove or channel 6, and the keyways have undercut walls 7 disposed at such angles as to properly engage with the walls of the groove or channel in the key. The purpose of the channel in the key and the undercut walls of the keyways is to produce a wedging effect upon adjacent column sections at the joint therebetween, so that any tendency of the sections to separate along the joint at the outer side of the key will be counteracted and prevented by the wedging action of the inclined walls of the groove or channel 6 on the undercut walls of the keyways, whereby open spaces or cracks on the exterior of the column along the joints of adjacent column sections is effectually prevented in a very simple and convenient manner.

Ordinarily the column sections are made of soft wood, and therefore it is proposed to make the keys of hard wood in order that they may perform the desired wedging action on the column sections.

It is preferred to locate the keys about

midway between the inner and outer faces of the column sections, and the tongue and groove connections are disposed between the keyways and the inner faces of the column sections. This disposition of the tongue and groove connection at the inner side of the key leaves the column sections undisturbed along the joint at the outer side of the key and therefore does not interfere with the wedging action of the key on the adjacent column sections.

Inasmuch as it is immaterial whether or not adjacent column sections separate at the inner face of the column, it is unnecessary to have a V-shaped channel or groove in the inner face of the key, and therefore I prefer to make the inner face of the key straight, whereby a very simple form of key is provided which can be produced quickly and inexpensively. Moreover by having only one undercut or oblique wall for each keyway, the shape of the keyway is simplified and it can be produced conveniently and inexpensively.

In forming a column embodying the features of my invention, the column sections are first arranged in a circular series with the tongues of successive sections engaging the grooves of adjacent sections, and thereafter the keys are driven endwise into the respective keyways, the tongue and groove connections holding the sections in their assembled relation during the driving of the keys.

In a column constructed in accordance with my invention there are no nails or other extraneous metal fasteners which are liable to rust and become loose. The fastening elements are of wood located wholly within the column and not exposed to the action of the weather. The keys are so shaped and disposed as to maintain tight joints between the column sections along the outer face of the column thereby preventing unsightly cracks in the face of the column.

Having thus described my invention what I claim is:

1. A column comprising a plurality of longitudinal sections having tongue and groove connections, and longitudinal keys driven in between the column sections and located at the outer sides of the tongue and groove connections said keys being arranged to draw the outer meeting edges of the sections together and permit separation by shrinkage of the inner edges of said sections, the tongue and groove connections preventing access of moisture to said keys.

2. A column comprising a plurality of longitudinal column sections having tongue and groove connections, and longitudinal keys driven in between the column sections and located at the outer sides of the tongue and groove connections, each key having a substantially V-shaped channel in its outer face, and the meeting edges of adjacent column sections having registering keyways shaped to receive the key.

3. A column section tapered transversely to produce converging meeting edges, each of the meeting edges having a longitudinal keyway having one of its side walls disposed at substantially right angles to the meeting edge of the section and its opposite side wall disposed at an angle to the meeting edge of the section to form an undercut wall, one of the meeting edges having a longitudinal groove located between the adjacent keyway and the inner edge of the section, and the other meeting edge of the section having a longitudinal tongue corresponding to the groove in contour and location.

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

HARVEY J. BEABES.

Witnesses:

MARY GRANGER,
S. B. FRIEDLINE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."