No. 871,576. PATENTED NOV. 19, 1907.

C. DRAYER.

COLUMN JOINT.

APPLICATION FILED APR. 3, 1906.

FIG. 1.

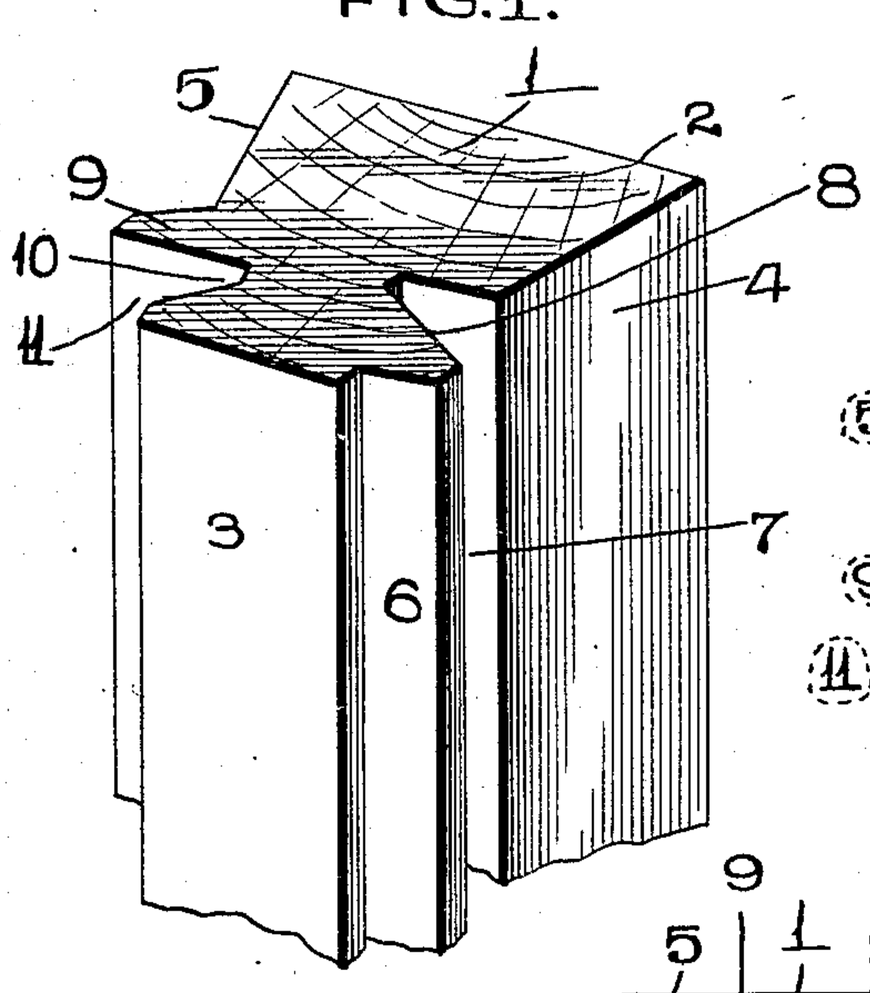


FIG. 2.

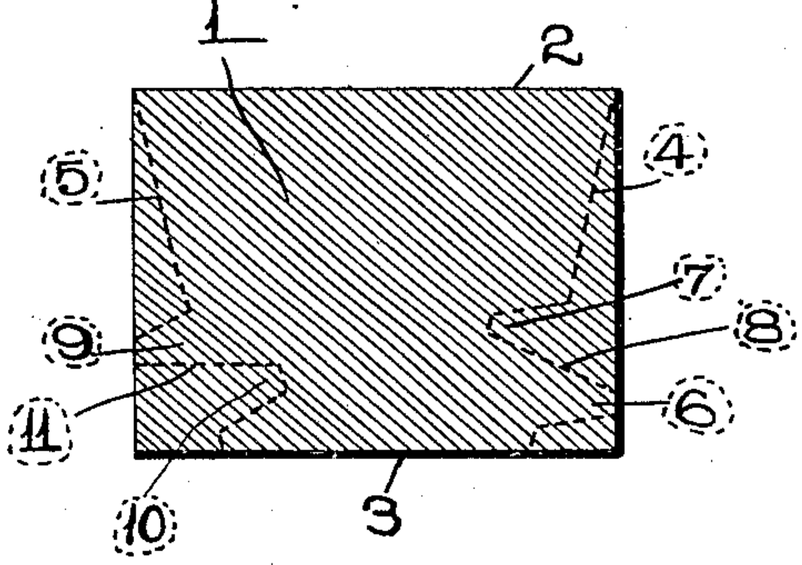
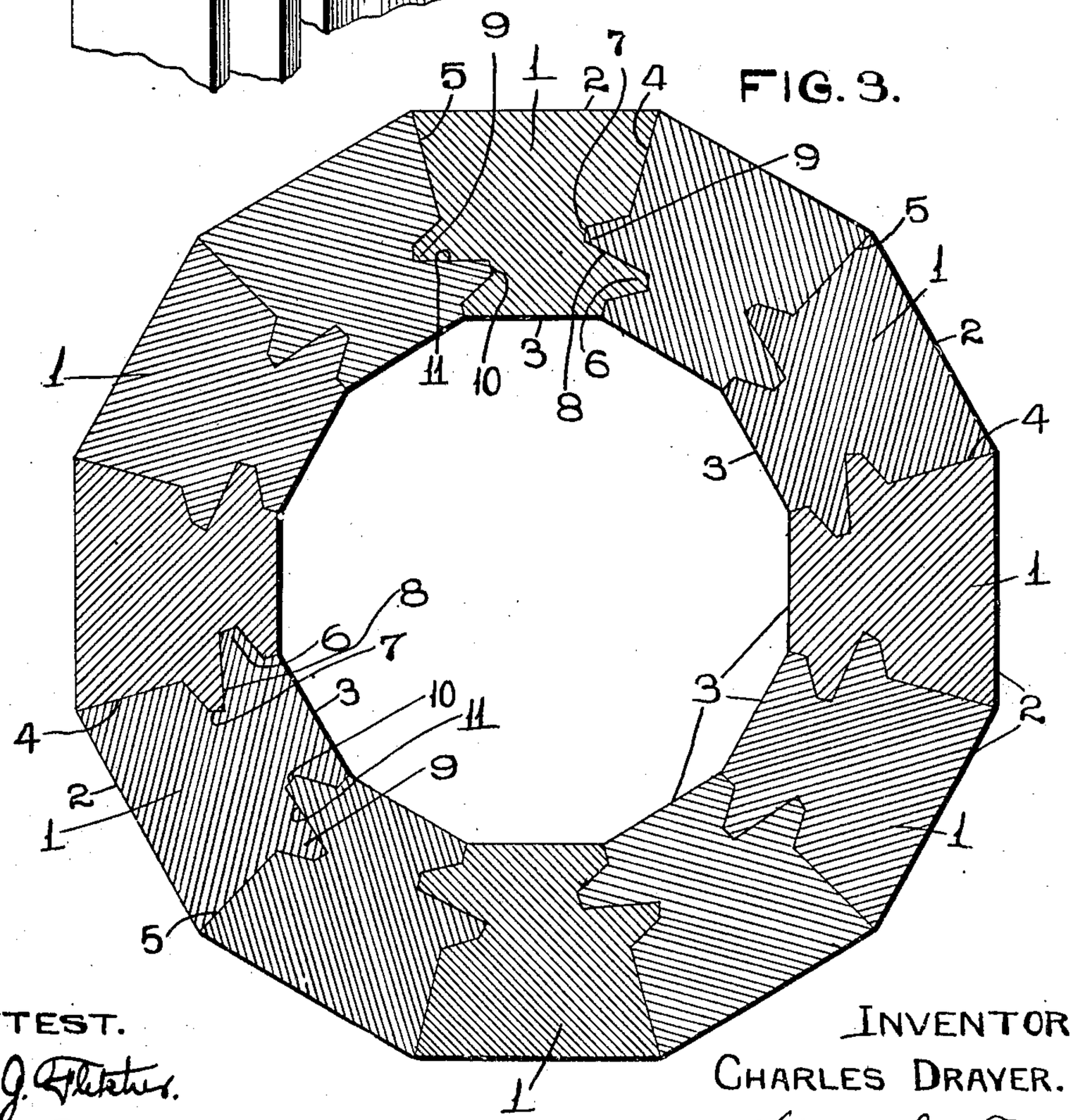


FIG. 3.



ATTEST.

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COLUMN-JOINT.

No. 871,576. Specification of Letters Patent. Patented Nov. 19, 1907.

Application filed April 3, 1906. Serial No. 309,717.

To all whom it may concern:

Be it known that I, CHARLES DRAYER, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Column-Joints, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a column joint, and the object of my invention is to provide a joint having a maximum amount of glue surface for the pieces or strips of material which are utilized in making up sectional wood columns ordinarily used for building purposes.

A further object of my invention is to make up a sectional column of strips of material having a comparatively small area in cross section, and the sides of which strips are cut with proper tongues and grooves so that there is a minimum amount of waste in preparing the individual sections.

To the above purposes, my invention consists of certain novel features of construction and arrangement of parts, which will be hereinafter more fully set forth, pointed out in the claims, and illustrated in the accompanying drawings, in which:—

Figure 1 is a perspective view of a short portion of one of the sections of which the complete column is composed; Fig. 2 is a cross section of a strip of timber of which one of the sections is formed, and the dotted lines in said figure showing the location of the cuts on the sides of strip which are made in forming one of the sections of the column; Fig. 3 is a cross section of a column made up of a plurality of sections properly fitted and joined.

Referring by numerals to the accompanying drawings:—1 designates the strip of material of which one of the sections is formed, and said strip is originally rectangular in cross section, with the straight outer face 2 and the straight inner face 3, which faces 2 and 3 are parallel.

The sides of the strip 1 are formed by suitable tools or machinery, so that side faces 4 and 5 are formed on lines which diverge from the inner face 3 toward the outer face 2, and which diverging lines are identical with radial lines which center at the diametrical center of the completed column.

Formed integral with the side of the strip 1 on which the face 4 is formed, and adjacent the inner face 3, is an outwardly projecting, longitudinally extending rib 6, which is wedge-shaped in cross section, and immediately adjacent this rib 6 and extending into the strip 1 from the face 4 is a groove 7, which is wedge-shaped in cross section, and one side face of the rib 6 is in the same vertical plane with one of the faces of the groove 7, and thus forms a wide face 8 which is approximately at right angles to the face 4.

Formed integral with the opposite side face 5 of the strip 1, and extending longitudinally thereon is a rib 9, wedge-shaped in cross section, and which is so located as to snugly fit within the groove 7 of the adjacent section; and formed in the side of the strip on which the face 5 is located, immediately adjacent the rib 9, is the longitudinally extending groove 10, which is wedge-shaped in cross section, and of such a size as to receive the rib 6 on the next adjacent section 1.

The inner surface of the groove 10 is a continuation of the outer surface of the rib 9, and forms a wide face 11, which is approximately at right angles to the face 5, and which face 11 is arranged to lie immediately against the face 8 of the next adjacent section 1.

All of the sections 1 are alike in construction, and by varying the degree of the angles on which the side faces 4 and 5 are formed, the columns may be constructed of an accordingly greater or less number of sections.

In building up a column with the section constructed as described, the side faces 4 and 5 of all the sections, together with the faces of the grooves 7 and 10, and the faces of the ribs 6 and 9, are thoroughly covered with a proper adhesive, such as liquid glue, after which the sections are fitted together in such a manner as that each rib 6 occupies the groove 10 in the adjacent section, and each rib 9 occupies the groove 7 in the corresponding adjacent section.

When the column is thus built up, it is suitably clamped together, and when the adhesive is thoroughly dry, the clamps are removed, and the exterior of the column is finished in the manner desired.

By providing the arrangement of ribs and grooves on the sides of the sections, a greatly increased glue surface is obtained between the sections, and consequently a very strong joint is obtained. For this reason the fin-

ished column is very strong and rigid, and its exterior surface can be ornamented by being turned or fluted, as desired.

The sides of each strip are easily formed without the necessity of special machinery, and there is very little waste of material in turning out this particular form of strip.

I claim:

In a column of the class described, a series of uniform sections fitted together, the sides of which sections are formed on diverging lines, there being longitudinally extending grooves formed in the side faces of each section, corresponding ribs formed integral with and extending longitudinally on the side faces of each section, one face of each groove being a continuation of one of the faces of the adjacent rib, and the wide faces thus obtained occupying planes approximately at right angles to the side faces of the sections; the bottoms of the grooves, and the outer ends of the ribs, being formed with corresponding faces having a predetermined width, and the outer ends of the ribs terminating in the planes occupied by the side faces of the strip from which the section is formed, substantially as specified.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

CHARLES DRAYER.

Witnesses:
M. P. SMITH,
H. G. FLETCHER.