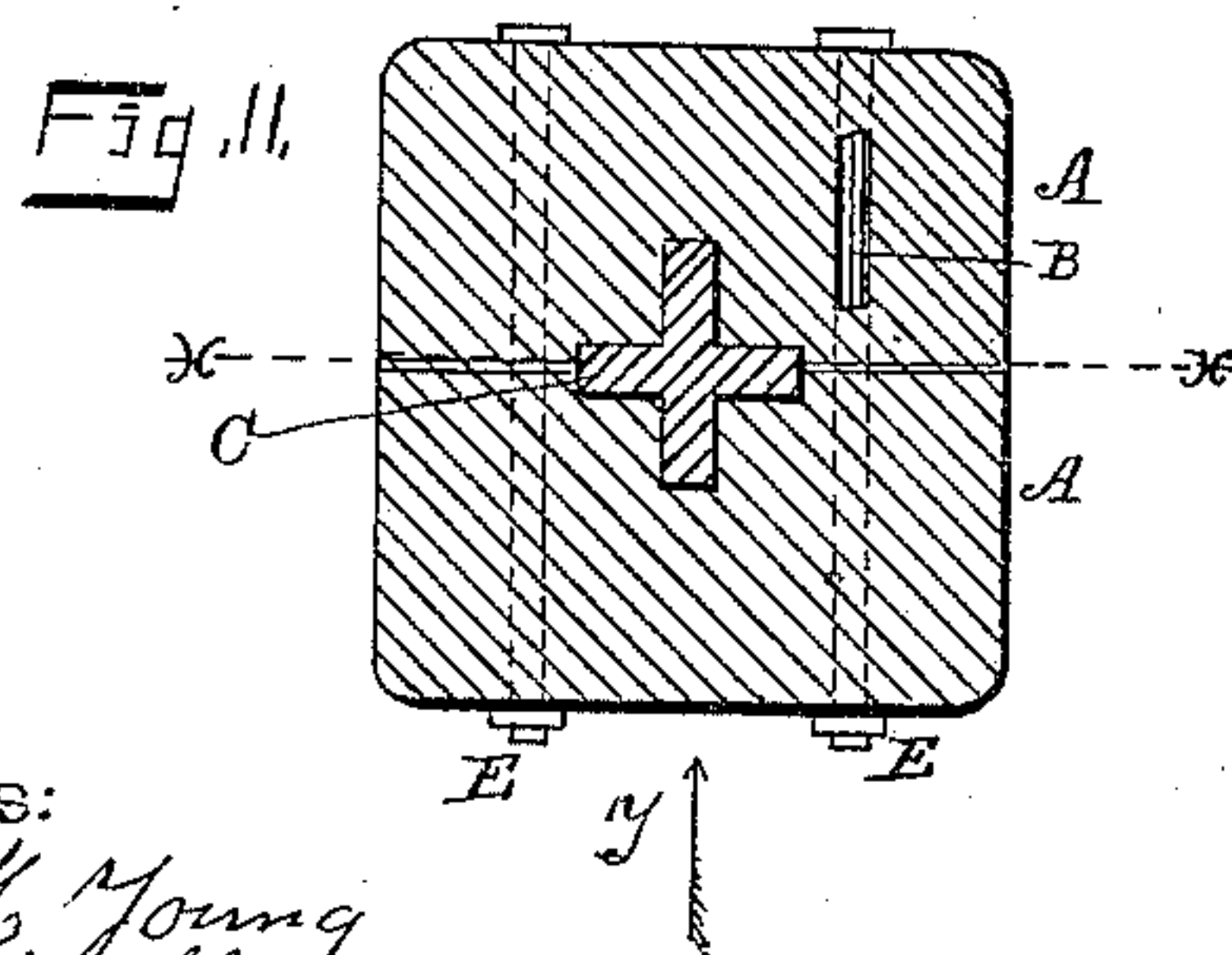
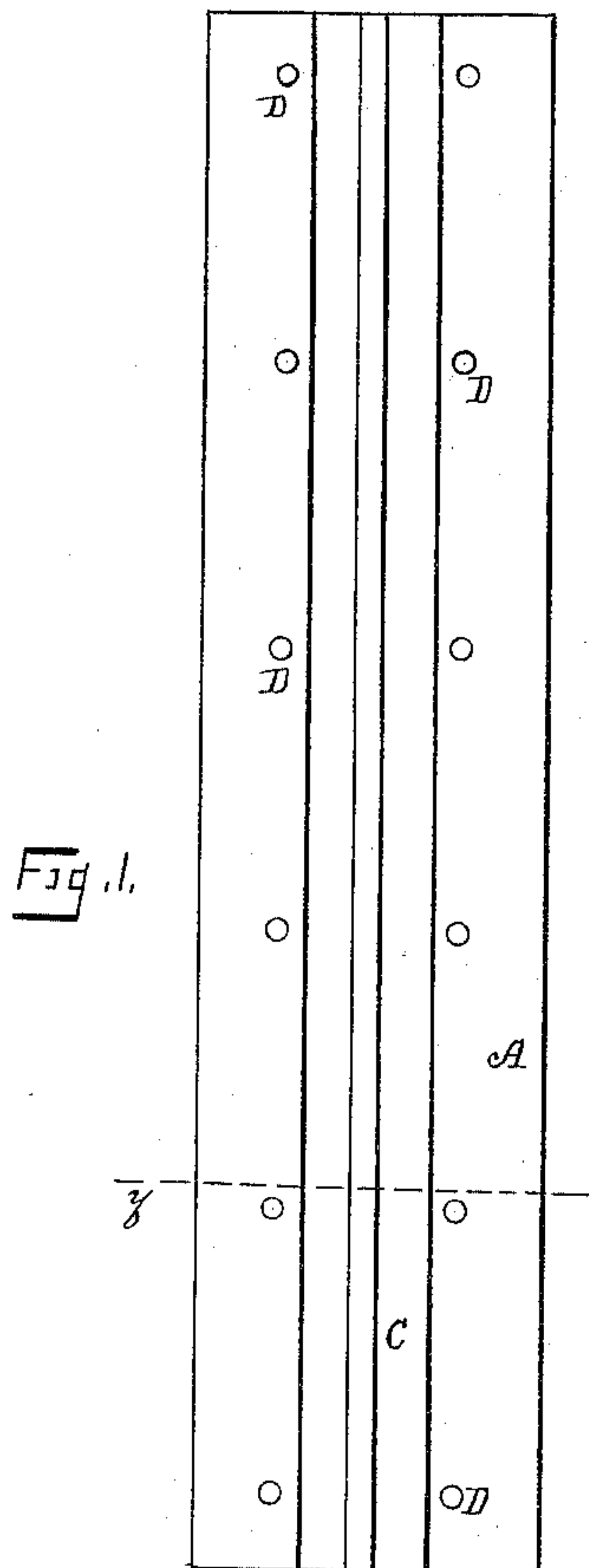


(No Model.)

W. H. DRAKE.  
COMPOUND FIRE PROOF COLUMN.

No. 409,832.

Patented Aug. 27, 1889.



Witnesses:  
Thomas H. Young  
Lucie Cornblith.

Inventor.  
William H. Drake.  
By G. L. Chapin. Atty.

# UNITED STATES PATENT OFFICE.

WILLIAM H. DRAKE, OF CHICAGO, ILLINOIS.

## COMPOUND FIRE-PROOF COLUMN.

SPECIFICATION forming part of Letters Patent No. 409,832, dated August 27, 1889.

Application filed June 1, 1889. Serial No. 312,894. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. DRAKE, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented new and useful Improvements in Compound Fire-Proof Columns, of which the following is a specification, reference being had to the annexed drawings, illustrating the invention, in which—

Figure I is a face view of one-half of the wood portion of the column and an elevation of the cruciform metal portion in position in said wood portion. The line separating the wood portions is  $xx$ , Fig. II, looking in the direction of dart  $y$ ; Fig. II, a horizontal section of a complete column on line  $z$ , Fig. I.

The purpose of this invention is to provide a compound column which can be cheaply made of timbers and metal, and have the advantage of the united strength of both materials without lateral lost motion between them. It has been the custom to employ four wooden gores on cruciform iron central supports and support the wood by battens lapping onto the gores and fastened to the flanges of the iron support. In such construction the wood is only employed as a fire-proof protection, and wood portions have been bored out and the bore filled with iron posts. It is very desirable that where iron and wood are combined the wood be clamped so closely that both materials are subjected to a like strain. I accomplish this by two pieces of suitable

wood, each of which is half as thick as it is wide in cross-section, so that when the two pieces are put together they will form in cross-section a square. The sections, as shown at A A, are grooved out longitudinally a trifle less each than half of the cruciform iron portion C, a small space being left between the wood sections that bolts and nuts B E may be employed to bring the wood firmly to the iron. The holes for the bolts are shown at D, Fig. I, and the bolts are shown in position at Fig. II. If care be taken in the construction, the iron portion can be made to fit closely the groove in the two sections of wood.

The advantages of this column are that the wood can be taken from timber found in stock, its simplicity of construction, and its durability. Also, in case of repairs, the wood can be readily removed from the metal.

I claim as new and desire to secure by Letters Patent—

In wood and metal columns, two sections of wood which placed together form a square, and the inner face of each section provided with semi-cruciform grooves, in combination with a cruciform metal central portion inserted in said grooves and the wood sections clamped to the iron portion, as and for the purpose specified.

WILLIAM H. DRAKE.

Witnesses:

G. L. CHAPIN,  
ANNA D. JOHNSON.