No. 840,111. PATENTED JAN. 1, 1907.

C. COLLINS.

FIREPROOF BUILDING CONSTRUCTION.

APPLICATION FILED MAR. 12, 1906.

Fig. 2.

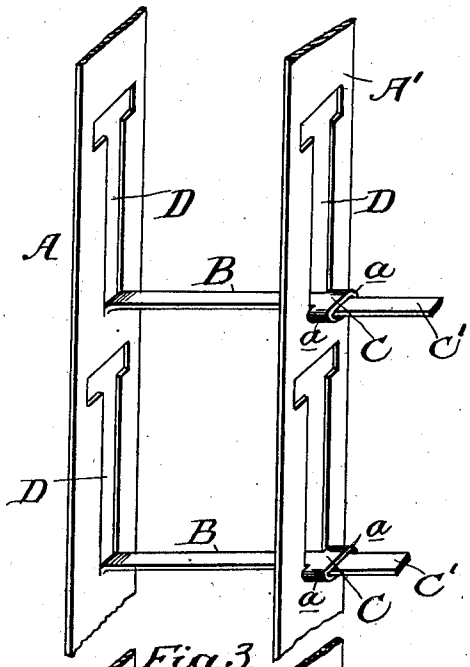


Fig. 1.

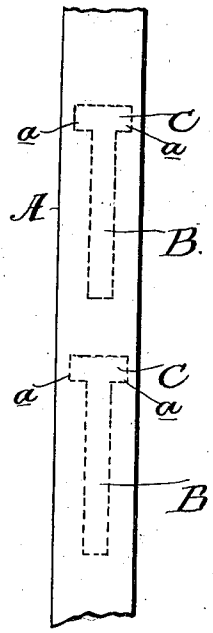


Fig. 3.

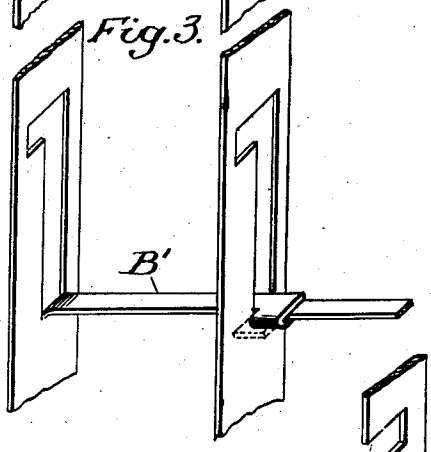
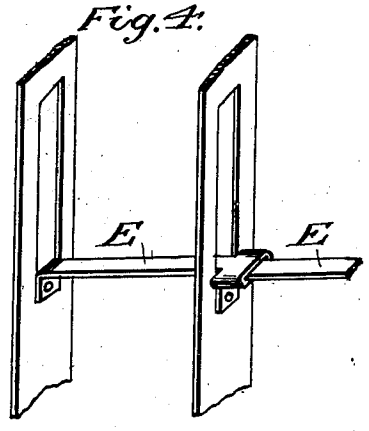
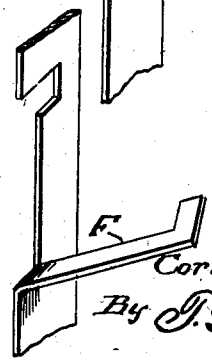


Fig. 4.



Witnesses:
C. D. Fowler
A. E. Powell

Fig. 5.



Inventor:
Cornelius Collins
By J. Walter Fowler
his atty

UNITED STATES PATENT OFFICE.

CORNELIUS COLLINS, OF SAN FRANCISCO, CALIFORNIA.

FIREPROOF BUILDING CONSTRUCTION.

No. 840,111. Specification of Letters Patent. Patented Jan. 1, 1907.

Application filed March 12, 1906. Serial No. 305,731.

To all whom it may concern:

Be it known that I, CORNELIUS COLLINS, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful improvements in Fireproof Building Construction, of which the following is a specification.

The present invention relates to certain new and useful improvements in constructing the bracing-pieces with self-contained means for facilitating their being secured to an adjacent like piece, whereby the strips are connected together to form substantially a rigid framework for use in a fireproof building construction.

Figure 1 represents a strip with dotted lines showing the form of bracing-piece to be cut therefrom from a point intermediate of the opposite edges of the strip. Fig. 2 illustrates a plurality of parallel strips and their transverse connecting bracing-pieces. Fig. 3 is a view similar to Fig. 2, showing a bracing-piece of slightly-modified form. Fig. 4 shows bracing-piece made separate from the strips. Fig. 5 is a modification.

The strips which I use for my purpose are recognized as having little inherent rigidity. Therefore when set up in a fireproof partition or like construction they must be securely braced. Various methods have been employed for forming the tongues or bracing-pieces, which extend transversely between and unite adjacent parallel strips, and different plans have been used to secure the free ends of the tongues.

In the present construction I form the tongues with what might be termed "self-contained" locking means—that is, out of the central portions of the strips A, I cut a T-shaped tongue or brace B, the length of which tongue may be equal to or slightly exceed the distance between two adjacent parallel strips. The slot or space D, formed by cutting out the tongue, may be utilized for pipes, wires, and such conductors as will be found in modern building constructions. One end of the tongue is left attached to the strip and the other or head end is bent outwardly toward the next adjacent strip and may be given a partial turn, the metal being sufficiently pliable for this purpose, to enable the enlarged head C to be passed substantially edgewise through the slot D of the next strip and then caused to assume its normal position and lie flat upon the base portion of a corresponding tongue formed from said next strip. The head of the tongue B is wider than the tongue of the strip to which it is to be secured, and the side flange portions *a* of said head which extend over and beyond the edges of the tongue C′ of the next strip A′ are now bent under the tongue C′ and clamped thereto by means of any tool suitable for this purpose.

The tongue B being attached at one end to the strip A and the enlarged head of this tongue abutting against the other strip A′, it is manifest that when a partition is set up in the manner described the several parallel strips, are securely braced against a movement away from each other in the direction of the length of the tongues and thickness of the strips and a sufficiently rigid framework is formed for the plaster, concrete, or other plastic material with which it is to be combined. If desired, the bracing-pieces may be made of separate pieces E, riveted at one end to one strip and fastened to the next strip, as before described, as shown in Fig. 4, also, if desired, the bracing-tongue B′ may be given substantially an L shape, as in Fig. 3, in which case the said head may be clamped to the next tongue substantially in the manner before described, and said tongues might even be cut from the edges of the strip, as at F in Fig. 5, without departing from the spirit of my invention.

In conjunction with the construction shown and described I employ mortar, concrete, or other plastic material which will afterward harden, and this is spread over and through the structure in the manner common in this art.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fireproof building construction, the combination of parallel metal strips, and bracing-tongues extending transversely between adjacent strips said bracing-tongues each having a transversely-enlarged head forming a flanged portion which is bent around the base portion of a tongue of an adjacent strip.

2. In a fireproof building construction, the combination of parallel strips and a bracing-piece extending transversely therebetween, said bracing-piece of one strip having a transversely-widened head terminating in side

flanges which are bent around the edges of a bracing-piece of an adjacent strip.

3. In a fireproof building construction the combination of parallel strips and a bracing-piece cut from each of said strips to form a slot said piece remaining attached to the strip at one end and being of substantially T shape, and having its head portion passed through the slot of the adjacent strip, and the sides of the head portion bent around the tongue of said adjacent strip and locked thereto.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CORNELIUS COLLINS.

Witnesses:
C. W. FOWLER,
TIMOTHY COLLINS.