May 15, 1934. E. S. MILLER 1,959,135

WALL CONSTRUCTION

Filed Jan. 7, 1929

Fig. 1.

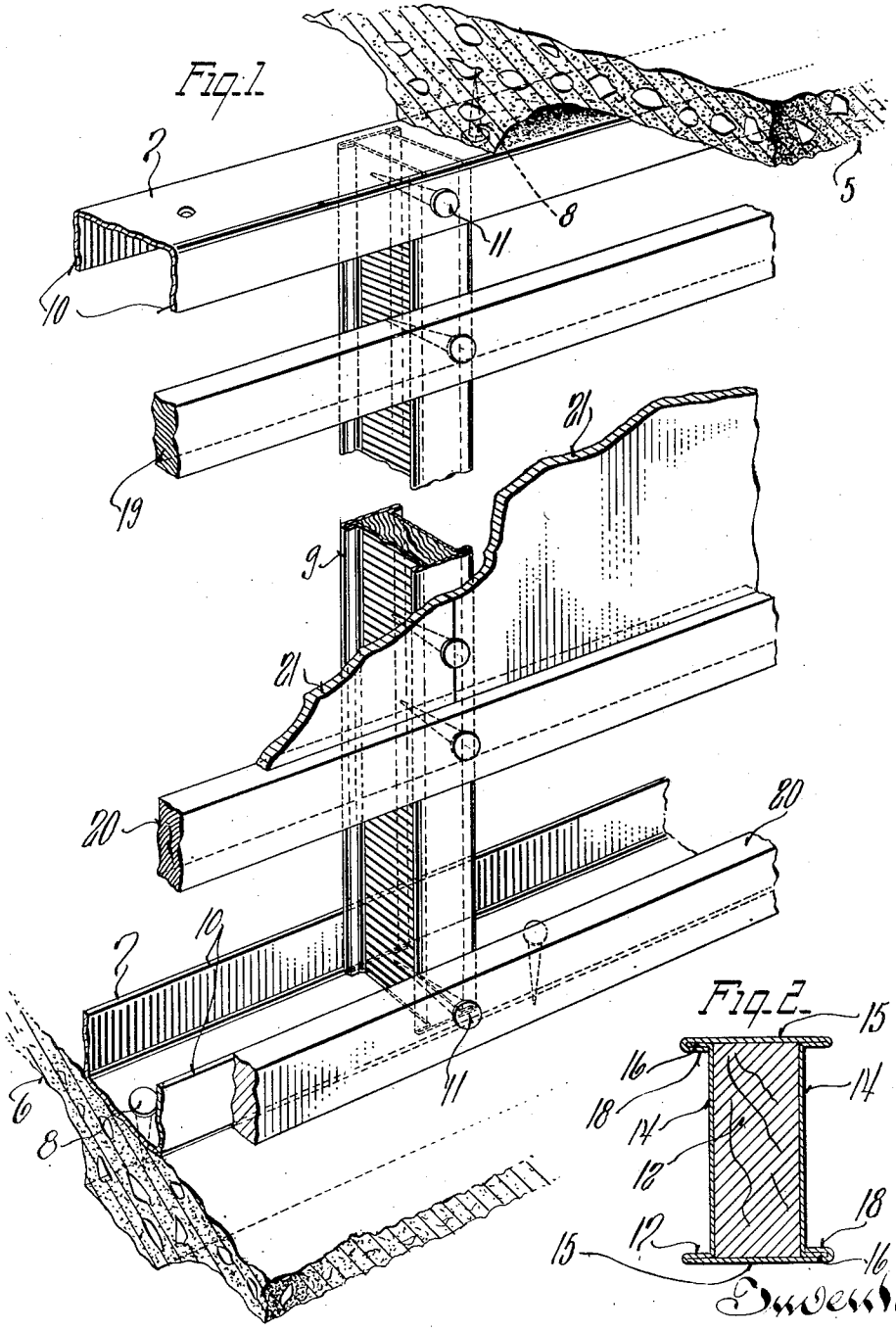


Fig. 2.

Inventor

Emmet S. Miller

By Sa Milton Jones.

Attorney

Patented May 15, 1934 1,959,135

UNITED STATES PATENT OFFICE

1,959,135

WALL CONSTRUCTION

Emmet S. Miller, Milwaukee, Wis.

Application January 7, 1929, Serial No. 330,832

5 Claims. (Cl. 72—115)

This invention relates to certain new and useful improvements in wall constructions and refers more particularly to an improved type of studding.

It is an object of this invention to provide a fire resisting stud which is economical, light, and exceptionally strong.

It is another object of this invention to provide an improved stud of the character described, which has but a small wood core tightly sheathed with sheet metal.

Another object of this invention resides in the provision of an improved stud of the character described having a metal sheath and to which lath, grounds and trim fixtures can be nailed.

And a still further object of this invention resides in an improved wall construction wherein aligned channel shaped tracks are secured to the ceiling and to the floor to receive the adjacent ends of studs.

With the above and other objects in view which will appear as the description proceeds, my invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the claims.

In the accompanying drawing, I have illustrated one complete example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a fragmentary, perspective view illustrating a portion of a partition wall in the process of construction with one of my improved studs in position, and

Figure 2 is a cross sectional view taken through a stud constructed in accordance with my invention.

Referring now more particularly to the accompanying drawing, the numerals 5 and 6 designate a ceiling and floor respectively to which aligned channel members 7 are secured wherever a partition wall is desired by nails 8 or the like especially adapted for such purposes. Studs 9 (only one being shown) are mounted with their ends disposed between the flanges 10 of the channels 7 where they are secured by nails or the like 11 passing through the flanges and into the adjacent portions of the studs.

The studs consist of a relatively small wood core 12 totally enclosed by a metal sheathing 13 formed of bendable metal and applied to the wood core in two similar L-shaped sections having long sides 14 and short sides 15. The edge of the side 14 of each section is directed laterally, as at 16, and that portion of the sections adjacent the intersection of the sides 14 and 15 is folded upon itself, to provide a flange 17 which extends beyond the side 14 a distance substantially equal to the laterally directed portion 16. The sections are secured about the wood core 12 by folding the outer edges of the sides 15 over the adjacent laterally directed portion 16 of the other section, as at 18.

In this manner an extremely rigid, light, and fire-resisting stud is produced at a comparatively low cost, which has practically all the advantages of a metal stud and in addition permits the attachment of nailing strips 19 and ground strips 20 wherever desired by merely nailing the same thereto. Any form of plaster board or lath 21 may be secured in the usual manner.

From the foregoing description, taken in connection with the accompanying drawing, it will be readily apparent to those skilled in the art to which an invention of the character described appertains, that I provide an improved wall construction which lends itself readily to fire-proof structures which may be conveniently and economically installed; and one in which alterations in buildings already occupied do not necessitate the discarding of the studs forming the partition.

What I claim as my invention is:

1. In a wall construction, a stud, comprising a wood core rectangular in cross section, and a metal sheath consisting of substantially L-shaped sections connected with each other to enclose the core by having their meeting edges interengaged.

2. In a wall construction, a stud comprising a substantially rectangular wood core and a metal sheath consisting of L-shaped sections connected with each other and enclosing the wood core, the short sides of the L-shaped sections lying directly against the short sides of the wood core, and said sections being formed with flat flanges in the plane of the short sides of the core and extended therebeyond, whereby the stud is substantially I-beam shaped in cross section.

3. In a wall construction, a stud comprising a wood core, and a metal sheath consisting of two L-shaped sections, each section having a lateral flange directed from one side of one of its legs and a flange formed by folding the metal upon itself adjacent the juncture of its two legs, and

said sections being connected with each other by folding the edge of the other legs over the laterally directed flanges at the edges of the first-mentioned legs.

4. An elongated continuous metal plate L-shaped in general outline in cross section, the elongated portions of the L being integral and bent one upon the other to form the angle of the L, the material at such angle extending outwardly in flat overlapping relation in face to face contact to form a strengthening fold, and each of the outer edges of the L plate being bent upon itself for attachment with another plate of similar angular outline.

5. A hollow metal beam, comprising a pair of sheet blank sections each bent lengthwise into substantially right angular broad and narrow wall portions with the angle portion of the sheet folded outwardly from the angle of the wall portions and collapsed into face contact to provide a strengthening fold of double thickness at the angle, each of said sheet blank sections being bent at its opposite longitudinal edges into complemental joint members, and the said blank sections being disposed in opposed relation to each other with the complemental joint members thereof interlocked to hold the sections together in interbracing relation.

EMMET S. MILLER.