

No. 734,781.

PATENTED JULY 28, 1903.

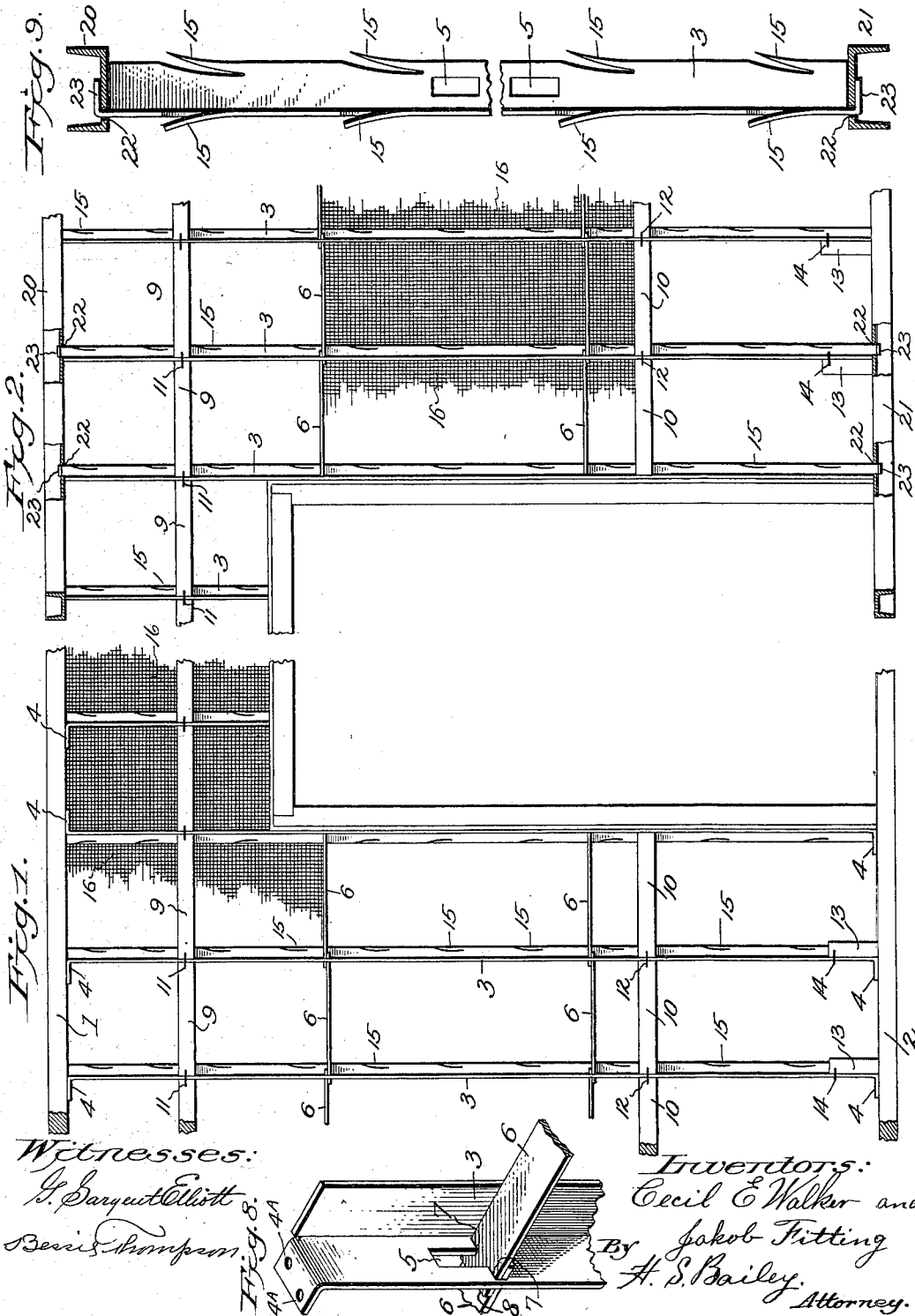
C. E. WALKER & J. FITTING.

METALLIC FRAMING FOR PLASTIC PARTITIONS AND CEILINGS.

APPLICATION FILED MAR. 31, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses:

G. Baryett Elliott
Beris Simpson

Inventors:

Cecil E. Walker and
Jakob Fitting
By H. S. Bailey.
Attorney.

No. 734,781.

PATENTED JULY 28, 1903.

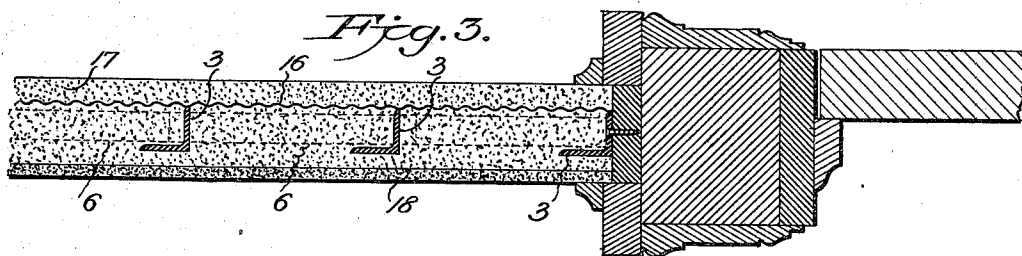
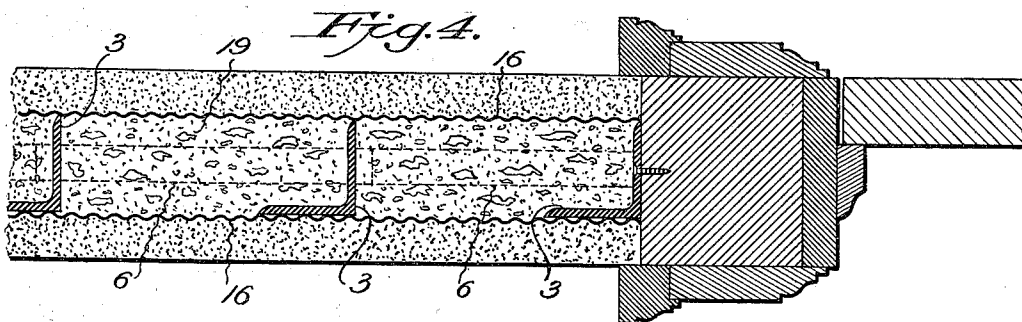
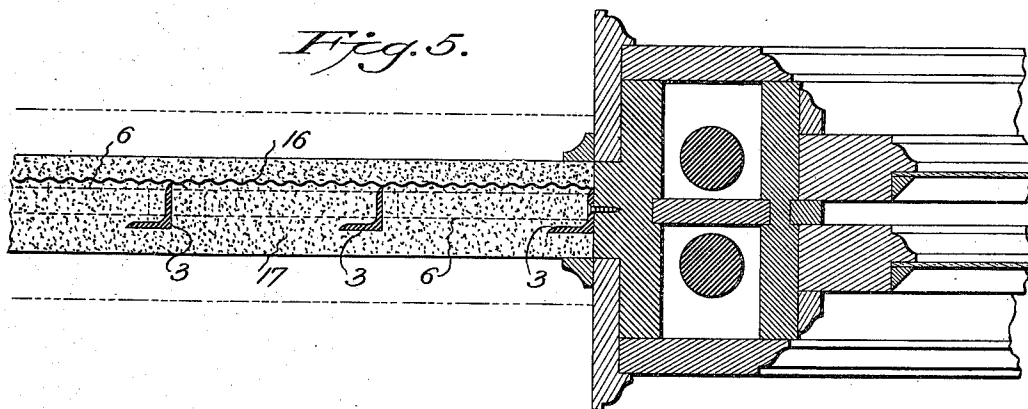
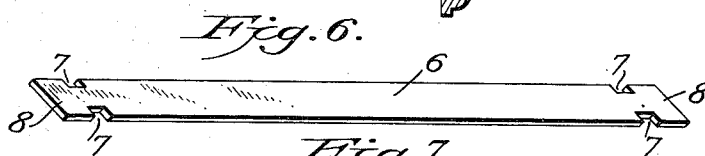
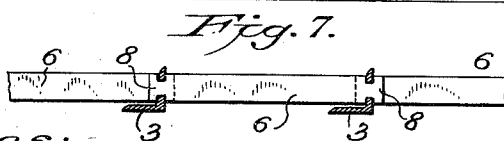
C. E. WALKER & J. FITTING.

METALLIC FRAMING FOR PLASTIC PARTITIONS AND CEILINGS.

APPLICATION FILED MAR. 31, 1903.

NO MODEL.

3 SHEETS—SHEET 2.



Witnesses:

G. Sargent Elliott.
Devis Thompson

By

H. S. Bailey.

Inventors:

Cecil E. Walker and
Jakob Fitting
Attorney.

No. 734,781.

PATENTED JULY 28, 1903.

C. E. WALKER & J. FITTING.

METALLIC FRAMING FOR PLASTIC PARTITIONS AND CEILINGS.

APPLICATION FILED MAR. 31, 1903.

NO MODEL.

3 SHEETS—SHEET 3.

Fig. 10.

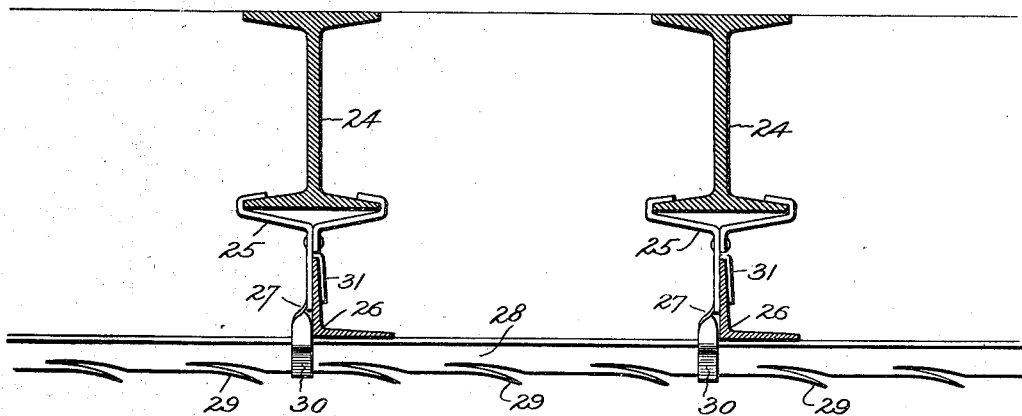
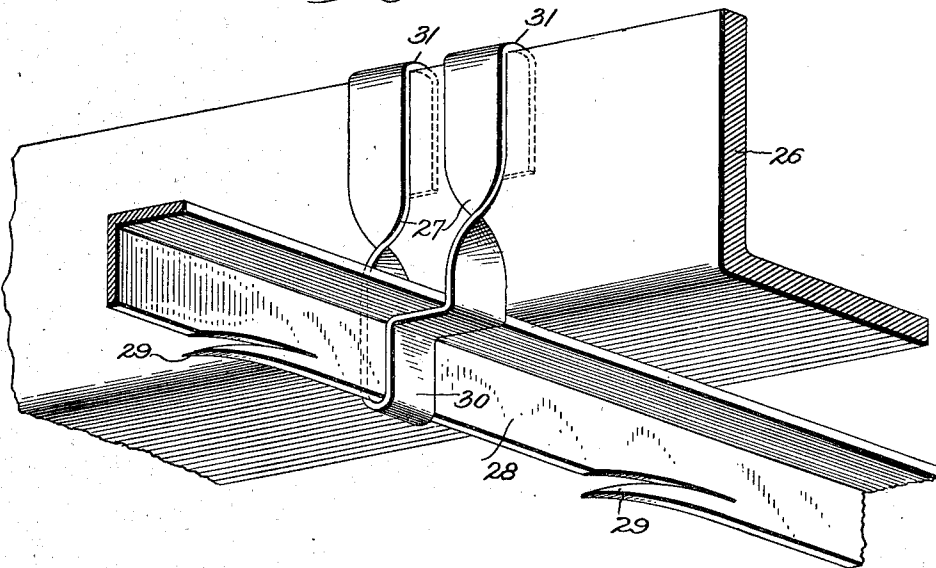


Fig. 11.



Witnesses:

G. Sargent Elliott.
Bessie Thompson

By

H. S. Bailey.

Inventors:

Cecil C. Walker and
Jakob Fitting

Attorney.

UNITED STATES PATENT OFFICE.

CECIL E. WALKER AND JAKOB FITTING, OF DENVER, COLORADO.

METALLIC FRAMING FOR PLASTIC PARTITIONS AND CEILINGS.

SPECIFICATION forming part of Letters Patent No. 734,781, dated July 28, 1903.

Application filed March 31, 1903. Serial No. 150,449. (No model.)

To all whom it may concern:

Be it known that we, CECIL E. WALKER and JAKOB FITTING, citizens of the United States of America, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Metallic Framing for Plastic Partitions and Ceilings; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in metallic partitions.

The objects of our invention are, first, to provide a partition all of the parts of which are fireproof and can be quickly assembled; second, to provide a new manner of securing the metallic lathing to the studdings; third, to provide for bracing the studdings, so as to dispense with screws, bolts, or rivets, and, lastly, to provide a firm, durable, and inexpensive partition in which all the parts may be assembled without the use of rivets, bolts, or like fastening devices. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of a fragment of our improved partition, the cap and sill to which the studs are secured, being wood. Fig. 2 is a view similar to Fig. 1, the cap and sill being metal channel-bars. Fig. 3 is a horizontal sectional view through a portion of a partition and door-frame, the form shown being for a two-inch partition, the metallic lathing being secured to only one side of the studding. Fig. 4 is a similar view of a four-inch partition, the lathing being secured to both sides of the studding. Fig. 5 is a view similar to Figs. 3 and 4, showing the partition in connection with a window-frame. Fig. 6 is a perspective view of one of the stud-braces. Fig. 7 is a fragmentary sectional view showing the manner in which the studs are connected by the braces. Fig. 8 is a perspective view of a portion of one of the studs, showing the slot in which the braces are locked. Fig. 9 is an elevation of one of the metal studs, showing the man-

ner of securing the same to a metal cap and sill, the edges of the stud being formed with prongs which form the securing means for the metallic lathing. Fig. 10 is a sectional view of a ceiling illustrating the manner of securing the studs to I-beams when a metallic-lath ceiling is used, and Fig. 11 is a perspective view showing a saddle for supporting the studs in ceiling construction.

Referring to the accompanying drawings, the numeral 1 indicates the cap, and 2 the sill, of a partition. The cap and sill may be of wood, as shown in Fig. 1, or they may be metal channel-bars, as shown in Fig. 2. To the cap and sill are secured at suitable intervals the studs 3, which in the present instances are angle-irons of any desired size. At each end of these angle-iron studs one of its members is longer than the other and is bent at right angles, as shown at 4 in Figs. 1 and 8, and this bent portion is provided with holes 4^A, through which pass nails or screws by which the stud is secured to the cap and sill, this means of securing the studs being employed only in connection with wooden caps and sills.

The sides of the studs facing each other are provided at intervals with two or more vertically-disposed slots 5, two being illustrated in the drawings. The upper slots in all the studs are on the same level or plane, and the lower slots in all the studs are likewise positioned. The studs are connected horizontally by braces 6, which are of the form shown in Fig. 6. These braces each consist of a strip of metal of suitable dimensions, the edges of which are notched near each end, as shown at 7, so as to form heads 8, the space between the notches representing the distance between the studs. When the studs have been secured to the cap and sill, the braces are locked to the studs by first turning them, so that their heads may pass through the vertical slots 5. One end is then passed through one of the slots far enough to allow its opposite end to enter the slot in the next stud. The brace is then moved in the opposite direction until the notches in each end are even with the edges of the slots, when the brace is turned so as to lie flat, as shown in Figs. 7 and 8, in which position it will securely connect two of the studs. Each stud is then connected in

the same manner with the stud next to it, and so on until all the studs have been braced. The frame thus far constructed will be rigid and strong and dispenses with all independent securing devices—such as rivets, screws, or bolts—excepting those used in securing the stud to the cap and sill.

Between the studs and a suitable distance from the ceiling are placed the ordinary nailing-strips 9, to which the picture-mold is secured, and the nailing-strips 10 for the chair-rail may be placed in the same manner a suitable distance above the floor, and the abutting ends of these strips are secured by staples 11 and 12, respectively, which straddle the edge of the stud.

Blocks 13 for the base-board are secured at the bottom of the studs by staples 14. The metallic lathing 16 is secured to the studs in the following manner: One or both edges of each stud are provided with prongs 15, which are formed therein in any suitable manner, so as to project from the edge of the stud, as clearly shown in Fig. 9. These prongs are designed to enter the meshes of the lathing as it is stretched from stud to stud and to hold it in position, and when the lathing is in position and is sufficiently taut the prongs are driven back against the edges of the stud, so as to securely clamp the lathing thereon.

In Figs. 3 and 5 a thin partition is illustrated, and the lathing is secured to only one side of the studs, while in Fig. 4 a partition of double the thickness is shown, the angle-bar studs being double the size of those illustrated in Figs. 3 and 5, and lathing is secured to each side of the studs. In the thin partitions where only one side of the studding is lathed plaster only is used or plaster with the usual white coating, as shown at 17 and 18, Fig. 3; but in the thicker partitions, where lathing is used on both sides of the studding, the space between the double lathing may be filled with any suitable fireproof material 19, such as cinder concrete, while plaster may be applied to the outside of the lathing, the whole making a solid and substantial structure.

In Figs. 2 and 9 the cap 20 and sill 21 are each an ordinary metal channel-bar, and when these are employed the studs are secured to them in the following manner: The bottom of each channel-bar is provided at intervals corresponding to the position of the studs with slots 22, and at each end of the stud one of its right-angle members is two or three inches longer than the other member. These extended ends 23 of the studs are placed in

the slots 22 of the cap and sill and hammered down, as shown in Fig. 9, so as to firmly secure stud, cap, and sill together. This construction is not only strong and thoroughly practical, but dispenses entirely with all the usual securing devices, thus effecting a saving in time and labor.

In Figs. 10 and 11 we have illustrated one way of securing the studs, when it is desired to secure the metallic lathing to the ceiling. To the lower side of the usual I-beams 24 are attached suitable brackets 25, which support angle-bars 26. Upon these angle-bars are hung saddles 27, which support the studs 28, having prongs 29 formed on their lower edges. These saddles are bent from a strip of metal, so as to form a bearing 30 for the studs, while their free ends are formed into hooks 31, which engage the vertical web of the angle-bars 26. This construction provides a deep ceiling, so that fireproofing material may be used, though, if desired, the studs may be secured directly to the bottom of the I-beams by suitable hangers, and thereby decrease the depth of the ceiling.

The device herein described is simple and practical and can be more quickly and economically built than partitions in general use, and while we have illustrated the preferred form of our improved partition we do not wish to be limited to this exact construction, as many modifications may be employed without departing from the spirit of the invention. Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

In a metallic frame for partitions, a cap and sill, each being formed of a channel-bar having slots in its horizontal face; angle-iron studs, having slots in their opposing faces, and extended portions at their ends which are designed to enter the slots in the channel-bars, and to be bent into engagement therewith; braces having notched ends which engage the walls of the slots in the studs; prongs on the edges of the studs, and metallic lathing which is caught by the said prongs, after which they are bent so as to securely hold the lathing upon the studs, substantially as shown.

In testimony whereof we affix our signatures in presence of two witnesses.

CECIL E. WALKER.
JAKOB FITTING.

Witnesses:

G. SARGENT ELLIOTT,
BESSIE THOMPSON.