April 22, 1930. C. COLLINS 1,755,503

STUD OR THE LIKE

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Fig. 1.

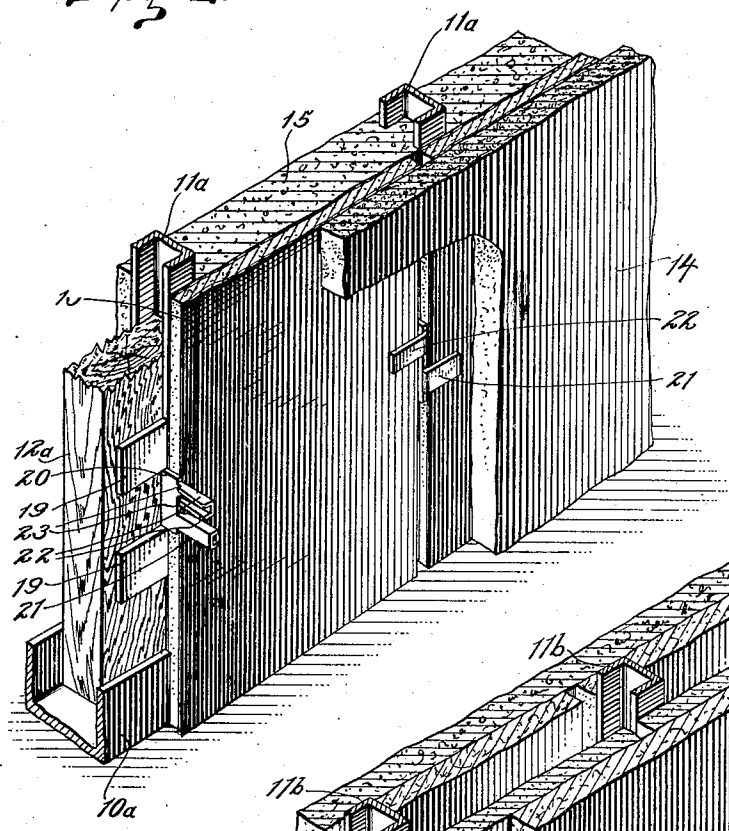
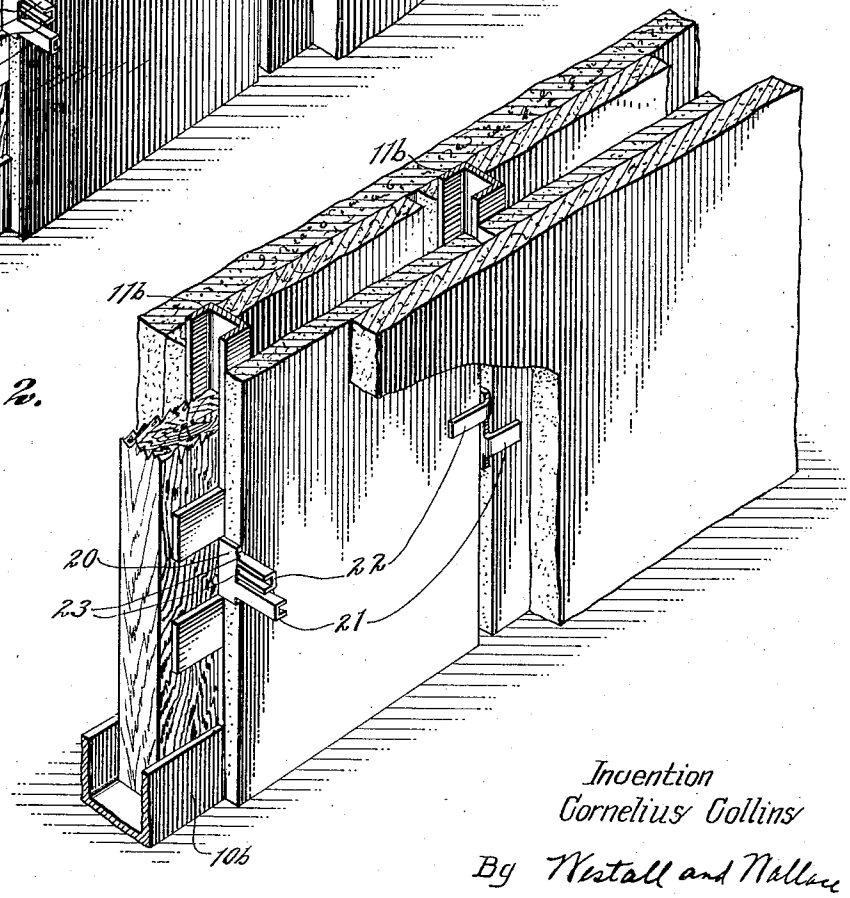


Fig. 2.



Invention
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Fig. 3.

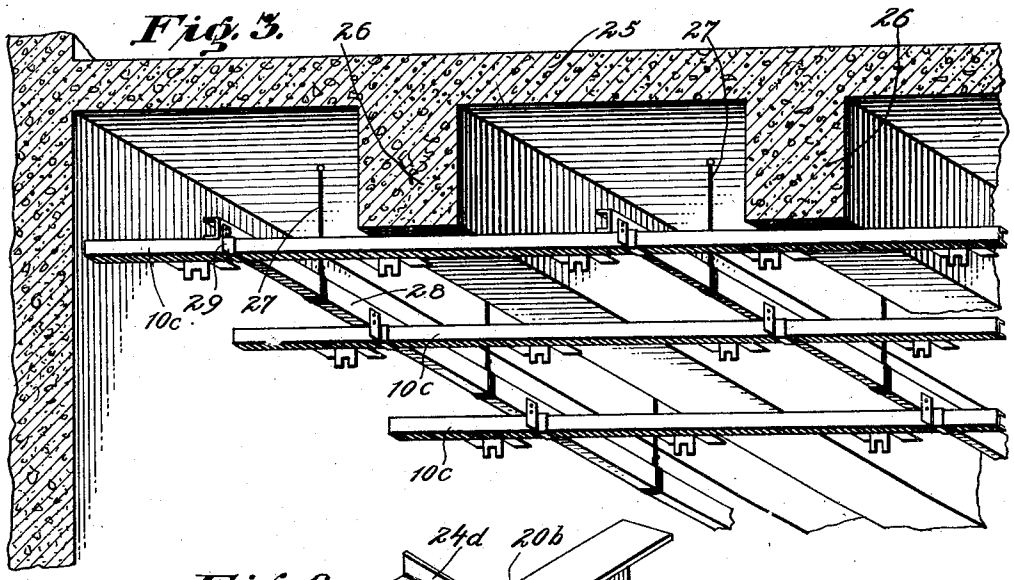


Fig. 6.

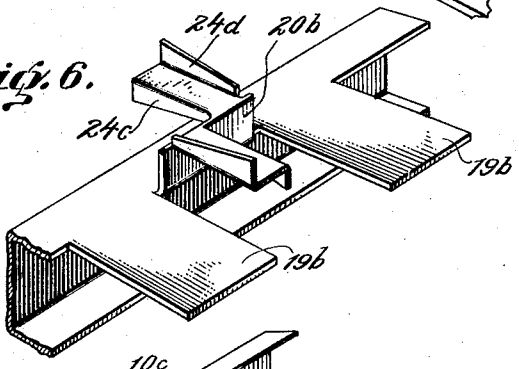
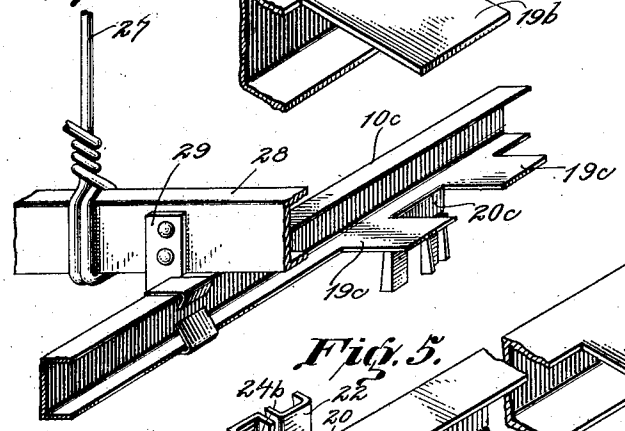


Fig. 4.



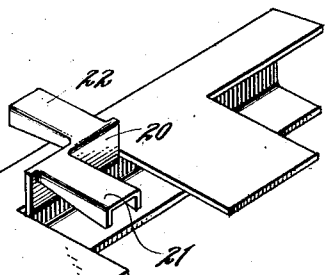
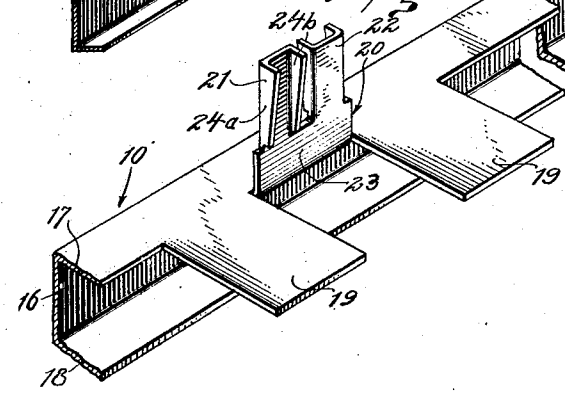


Fig. 5.



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Patented Apr. 22, 1930 1,755,503

UNITED STATES PATENT OFFICE

CORNELIUS COLLINS, OF LOS ANGELES, CALIFORNIA

STUD OR THE LIKE

Application filed June 26, 1928. Serial No. 288,374.

This invention relates to a bar for metallic frames adapted to be assembled to provide partitions, walls, ceilings and the like. It appertains more especially to a bar or supporting element which has improved means for attaching panels such as plaster board, plaster lath or similar plaster receiving mediums thereto. The present invention contemplates the provision of a bracket shaped bar having a leg from which extends wings adapted to be inserted between the adjoining ends of panels or in slots or other openings. The wings are provided with projecting fingers suitable for bending over the panels or mediums for supporting plaster to retain the latter in position. Heretofore, such members have been employed but the fingers thereof have been extended in a direction such as to project a considerable distance from the medium and therefore are embedded in the finishing coat a substantial distance which in many instances is objectionable.

It is the primary object of this invention to provide a bar having wings and fingers wherein the fingers are disposed to be bent into retaining position and lie flush with the surface of the medium; it is another object of this invention to provide wings on such bars, having abutment means for the panels; it is a still further object of this invention to provide a bar of the character described having flanges provided with penetrating edges which may be embedded in the face of the plaster board to clinch the latter in position; and it is a still further object of this invention to provide in conjunction with the attachment wings, supporting wings serving as a foundation against which the panels may rest.

These objects are attained by means of the embodiments of my invention illustrated in the accompanying drawing in which:—

Fig. 1 is a perspective view of a fragment of a finished wall having portions broken away and employing studs embodying my invention; Fig. 2 is a perspective view similar to Fig. 1 showing a hollow wall; Fig. 3 is a perspective view of a fragment of a hung ceiling; Fig. 4 is a perspective view showing a detail of the ceiling; Fig. 5 is a perspective view of a bar including my invention, a portion being broken out; and Fig. 6 is a perspective view of a modified form of a bar embodying the invention.

Referring more particularly to Fig. 1, a metallic skeleton for a solid partition or wall is shown. It comprises a floor plate 10^a of channel form, upon which are mounted studding 11^a extending upward, a suitable top plate and braces being provided if advisable, these latter members not being shown. The studs are channel bars and a nailing block 12^a is shown mounted in the channel of the floor plate and a stud to serve for attachment of bases or like members. Mounted over one side of the skeleton and resting against the legs of the studs are panels, in this instance being shown as plaster board, and over the panels is disposed a plaster coat 14. Filling the space between the studs and projecting beyond is plaster 15. This type of wall structure is common, and the invention resides particularly in the studs, one of which is shown more particularly in Fig. 5. The stud indicated generally by 10 comprises a web 16 and legs 17 and 18. Cut from the leg 17 are extensions which are divided by slits into pairs of supporting wings 19 and attachment wings 20. The supporting wings are alined with the legs that is, in the same plane and the attachment wings are bent at right angles to the leg so as to have their planes parallel to the web. Fingers 21 and 22 are cut from wing 20, the roots of the fingers extending short of the bottom of the wing to provide abutment sections 23. The fingers, as shown, have tapering flanges 24^a and 24^b with their larger ends at the tips of the fingers and their smaller ends at the roots. The finger flanges provide penetrating edges. The flanges on adjacent fingers on a web are directed oppositely.

In the mounting of the plastic board panels, they rest against the supporting wings 19 and are butted against the abutment section 23, the wings 20 extending between the adjoining edges of the panel. The fingers are now bent bent downwardly over the plaster board and

forced against the outer faces thereof so that the flanges penetrate the face of the plaster board. This serves as a key and securely retains the plaster board in position. It will be obvious that the plaster board is supported by the legs and supporting wings of the stud, by the abutment sections of wings 20 and by the fingers, so as to securely retain the panels in position. The ease of installation is apparent. In the construction shown in Fig. 1 the studs need only have wings on one leg thereof. It will also be obvious that the character of the studs are such that a twin channel may be constructed and then cut along the adjoining web to provide wings and fingers with a minimum of wastage.

Fig. 2 illustrates a hollow wall, the skeleton being faced on both sides with plaster board panels and plaster. A floor plate 10^b has steel studs of channel board 11^b mounted thereon. These studs are of like construction to those illustrated in Figs. 1 and 5, except that supporting wings and attachment wings with fingers are formed on both legs. The construction is obvious from the drawing.

In Figs. 3 and 4 a suspended ceiling construction is shown. The ceiling face is indicated by 25 and may be of concrete or any other suitable material there being beams 26 formed integral therewith. Attached to the base member 25 are wires 27 supporting carrying bars 28 preferably of channel form. Secured to the carrying bars by rivets or in any other suitable manner are clips 29 supporting lathing bars 10^c. These bars are of the same construction as shown in Fig. 5, having the wings formed on one leg. Pairs of supporting wings 19^c extend from the lower legs and intermediate the members of each pair is an attachment wing 20^c with fingers. Plaster board panels may be placed against the lower legs and supporting wings, the panels abutting the attachment wings and being held in position by the fingers which may be bent against the plaster board panels and embedded therein.

It may be found advantageous in some instances to form the flanges on a finger so they are extended in opposite directions. In Fig. 6 such a construction is shown. The bar has extending from one leg thereof supporting wings 19^b and intermediate adjacent supporting wings are the attachment wings 20^b. In their initial form, the fingers are of the same shape as that shown in Fig. 5 before the flanges are bent. However, each of the fingers has a flange 24^c bent in one direction to penetrate the plaster board and a flange 24^d bent in the opposite direction. The flange 24^d may serve as a convenience for engagement by pliers or like tool in bending the fingers in position. It will be obvious that either flange may serve for this purpose depending upon the direction in which the finger is to be bent. It will also be apparant that the flange may be straightened after bending so as to lie flat against the panels.

When plaster lath is used, the flanges on the fingers only serve the purpose of keys to more securely lock the plaster in position. So far as holding the lath in position, the bendable fingers are sufficient.

What I claim is:—

1. A wall or ceiling frame member comprising a bracket shaped bar having a leg, finger wings extending from said leg, bendable fingers on said finger wings, said fingers being folded along lines longitudinal thereof to provide tapering flanges with penetrating edges.

2. A wall or ceiling frame member comprising a bracket shaped bar having a leg, finger wings extending from said leg, bendable fingers on said finger wings having lateral flanges flaring to a greater width toward the tips.

3. A wall or ceiling frame member comprising a bracket shaped bar having a leg, finger wings extending from the marginal edge of and integral with said leg, said finger wings being slit transversely to the length of said bar and extending short of the base of said finger wings to provide an abutment for panels with bendable fingers extending therefrom having lateral flanges with a greater breadth at their tips than at their roots.

4. A wall or ceiling frame member, comprising a bracket shaped bar having a leg, finger wings extending from the marginal edge of and integral with said leg, said finger wings being slit transversely to the length of said bar and extending short of the base of said finger wings to provide an abutment for panels with bendable fingers extending therefrom, said fingers being folded along lines longitudinal thereof to provide lateral flanges tapering in width to provide penetrating edges.

5. A wall or ceiling frame member comprising a bracket shaped bar having a leg, finger wings extending from said leg, bendable fingers on said finger wings, said fingers being folded along lines longitudinal thereof to provide tapering flanges with penetrating edges, and supporting wings contiguous to said finger wings with their planes in alinement with said leg.

6. A wall or ceiling frame member comprising a bracket shaped bar having a leg, finger wings extending from said leg, bendable fingers on said finger wings having lateral flanges flaring to a greater width toward the tips, and supporting wings contiguous to said finger wings with their planes in alinement with said leg.

7. A wall or ceiling frame member comprising a bracket shaped bar having a leg, finger wings extending from the marginal edge of and integral with said leg, said fin-

ger wings being slit transversely to the length of said bar and extending short of the base of said finger wings to provide an abutment for panels with bendable fingers extending therefrom having lateral flanges with a greater breadth at their tips than at their roots, and supporting wings contiguous to said finger wings with their planes in alinement with said leg.

8. A wall or ceiling frame member, comprising a bracket shaped bar having a leg, finger wings extending from the marginal edge of and integral with said leg, said finger wings being slit transversely to the length of said bar and extending short of the base of said finger wings to provide an abutment for panels with bendable fingers extending therefrom, said fingers being folded along lines longitudinal thereof to provide lateral flanges tapering in width to provide penetrating edges, and supporting wings contiguous to said finger wings with their planes in alinement with said leg.

9. A wall or ceiling frame member, comprising a bracket shaped bar having a leg, finger wings extending from the marginal edge of and integral with said leg, said finger wings being slit transversely to the length of said bar with the slits extending short of the base of said finger wings to provide an abutment for panels with bendable fingers projecting therefrom, said fingers being folded along lines longitudinal thereof to provide lateral tapering flanges with the width at the tips of the fingers greater than at the roots so as to provide penetrating edges, and supporting wings contiguous to said finger wings with their planes in alinement with said leg.

In witness that I claim the foregoing I have hereunto subscribed my name this 1st day of June, 1928.

CORNELIUS COLLINS.