Oct. 24, 1933. F. M. VENZIE 1,931,909

BUILDING STRUCTURE

Original Filed July 30, 1930

Fig. 1.

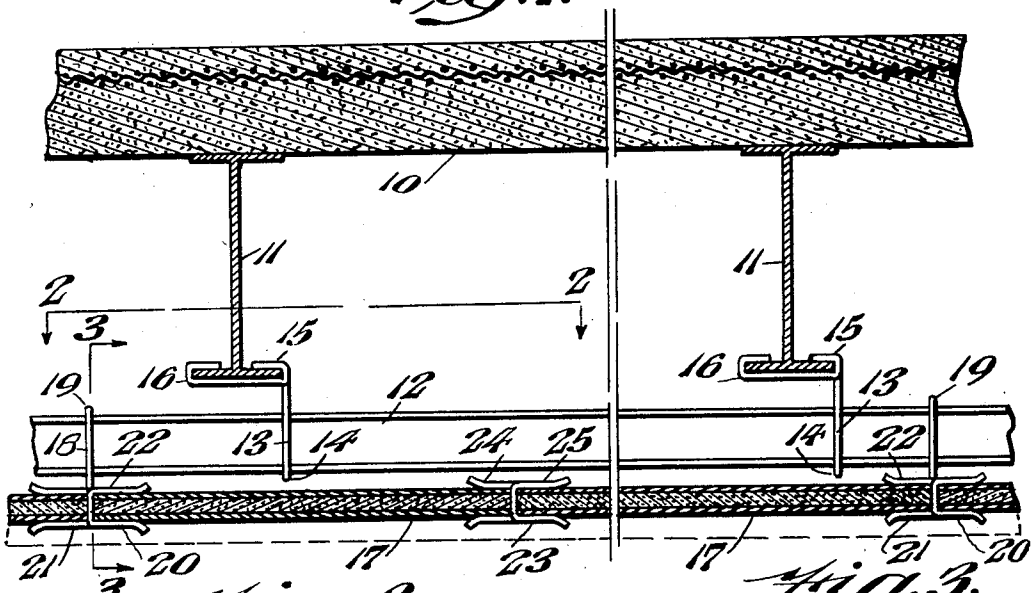


Fig. 2.

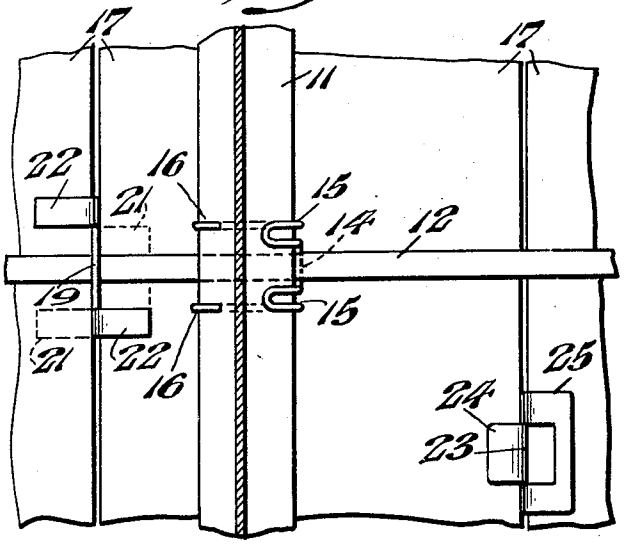


Fig. 3.

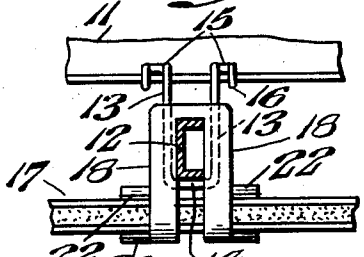


Fig. 4.

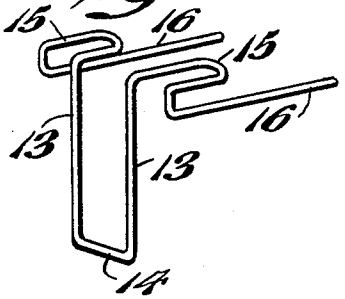


Fig. 5.

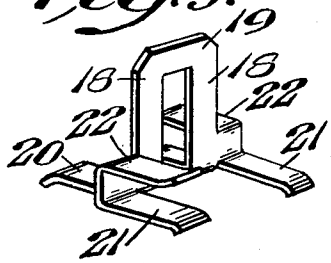
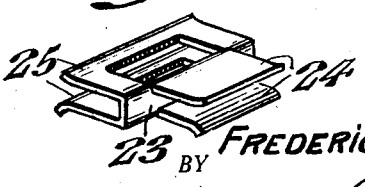


Fig. 6



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UNITED STATES PATENT OFFICE

1,931,909

BUILDING STRUCTURE

Frederick M. Venzie, Philadelphia, Pa.

Original application July 30, 1930, Serial No. 471,718, now Patent No. 1,879,778, dated September 27, 1932. Divided and this application April 18, 1931. Serial No. 531,070

4 Claims. (Cl. 72—120)

This application is a division of my pending application Serial No. 471,718, filed July 30, 1930.

This invention stated in its broadest terms, relates to a building structure and has more especial relation to a novel form of ceiling construction embodying both so-called plaster boards and so-called plaster blocks.

It is one object of the present invention to provide an arrangement of parts whereby the services of but one workman or mechanic is required to suspend the ceiling members whether of so-called plaster boards or so-called plaster blocks, operating upon a scaffold erected beneath channel irons forming part of the building structure.

It is a further object of the present invention to provide an arrangement and combination of parts whereby either plaster boards or plaster blocks may be removably suspended from plasterer's channels instead of suspending the same from floor members or the floor itself, as is commonly practiced.

A further object of the present invention is to provide an arrangement and combination of parts whereby the suspended plaster boards or plaster blocks may be readily removed at desired intervals for replacement purposes, as for example where it is required for the inspecting or laying of pipes, electric wires and the like between the floor of a building and the tops of the plasterer's channels.

A still further object of the present invention is to provide a novel form of clip for ready attachment of a light beam section for retaining a plasterer's channel.

A still further object of the present invention is to provide a novel form of clip for ready attachment to a plasterer's channel for supporting plaster boards in detachable engagement with respect to the plasterer's channel.

A still further object of the present invention is to provide a novel form of clip for coupling together adjacent plaster boards as suspended from a plasterer's channel.

Other and further objects of the present invention reside in the provision of general details of construction and in the arrangement, combination, and connection of parts for attaining the results sought by the foregoing objects.

The invention consists of the novel construction hereinafter described and finally claimed.

The nature, characteristic features and scope of the invention will be more fully understood from the following description taken in connection with the accompanying drawing forming part hereof, and in which:

Fig. 1 is a fragmentary view, partly in elevation and partly in section, illustrating plaster boards in suspended position from plasterer's channels;

Fig. 2 is a view in horizontal section taken upon the line 2—2 of Fig. 1;

Fig. 3 is a view in vertical cross-section taken upon the line 3—3 of Fig. 1;

Fig. 4 is a view in perspective of one of the clips shown in the foregoing figures for suspending plasterer's channels from light beam sections;

Fig. 5 is a similar view of a clip for suspending plaster boards from a plasterer's channel; and

Fig. 6 is a similar view of a clip for coupling together adjacent plaster boards as suspended from plasterer's channels.

For the purpose of illustrating my invention I have shown in the accompanying drawing forms thereof which are at present preferred by me, since the same have been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of the instrumentalities as herein shown and described.

As at present practiced in the trade, it is customary to suspend plaster boards and plaster blocks direct from what are technically known as floor members going to make up the building structure. By this method of suspension of plaster boards and plaster blocks the same are positioned prior to the laying of the floor upon the floor members, which is a very expensive procedure. For example, it frequently happens that after the plaster boards or plaster blocks are positioned with respect to said floor members it becomes necessary to take up and relay at least part of the floor in order to gain access to the space between the floor and the plaster boards or plaster blocks for certain purposes, as, for example, the laying of pipes or the stringing of electrical wires, and this requires the services of at least two mechanics or workmen and also the provision of a temporary scaffold, which cannot be used for any other plasterer's purpose.

According to the present invention I propose the adoption of the method of suspending fire proofing plaster boards or plaster blocks not directly from the floor members but from plasterer's channels, which in turn may be supported by the floor members or by the floor itself.

Referring now to the drawing in detail, the reference numeral 10 designates a floor which may be concrete or other suitable material and is shown as being supported upon conventional technically known floor members 11. According to the present invention I propose erecting a ceiling of either plaster boards or plaster blocks, below such floor, but instead of supporting said plaster boards or plaster blocks from the conventional floor members 11, as is commonly practiced, I propose suspending my plaster boards or

plaster blocks from plasterer's channels in a manner to presently appear. At any desired height below the floor 1, I may therefore arrange plasterer's channels 12. These plasterer's channels 12 are supported from the lower portions of the floor members 11 by means of clips best seen in Fig. 4. Each of these clips comprises a substantially U-shaped member of heavy wire bent to provide a pair of parallel, vertically extended arms 13 connected at their lower portions by a loop 14. The upper ends of the arms 13 are each bent horizontally to form upper loops 15 and lower fingers 16. These fingers 16 are sufficiently long to permit the free ends thereof to be bent over the lower flanges of the floor members 11. The upper loops 15 and lower fingers 16 provide a clamping portion which may be forced over the lower flange of the floor members 11, as clearly shown in Fig. 1. The loops 15 and fingers 16, being of wire, can be readily forced over the flange of a floor member to firmly secure a clip to place without the employment of other fastening mediums. These clips are attached upon opposite sides of a floor member 11, as clearly shown in Fig. 1, so that a plasterer's channel 12 may be inserted between the arms 13 of the clips so as to be supported upon the loops 14 of the clips. In the connection it will be understood that the plasterer's channels 12 are arranged at right angles with respect to the floor members 11. From the plasterer's channel 12 I support the plaster boards 17 and for this purpose I employ the novel form of clip best seen in Fig. 5. Each clip comprises a one piece metal construction, preferably stamped, and consists of a generally inverted U-shaped member the vertical arms 18 of which are connected at their upper portions by means of a cross bar 19 so that when the clip is placed over a plasterer's channel 12, as clearly shown in Fig. 3, the cross bar 19 rests upon the top of the plasterer's channel. The lower ends of the arms 18 are bent outwardly at right angles to the arms 18 to provide fingers 20, and the lower portions of said arms 18 are also bent outwardly in parallelism with the fingers 20 to provide a pair of lower fingers 21 which are, however, extended in a direction opposite to the fingers 20. Arranged at right angles with respect to the arms 13 of the clip are upper fingers 22. The fingers 22 and 21 engage one end of a plaster board 17, said plaster board also resting upon a finger 21. Another plaster board 17 rests upon the fingers 21 and beneath the finger 22. This arrangement of parts is best seen in Fig. 2. With the plaster board 17 thus arranged, adjacent plaster boards may be coupled together by means of a clip, best seen in Fig. 6. Each clip comprises a one piece metal structure having a vertically disposed plate 23 having bent outwardly therefrom a pair of fingers 24 extended at right angles with respect to the plate 23. The plate 23 also has bent out therefrom in the same plane with the fingers 24 other fingers 25 which are substantially U-shaped considered in plan. The fingers 24 and 25 engage the adjacent edges of the plaster boards 17, as is clearly illustrated in Fig. 2. The purpose of the last described clips is that of preventing sagging of adjacent plaster boards.

A description will now be given of the manner of a single workman erecting plaster boards 17 in accordance with the invention. The single workman upon a scaffold arranged beneath the floor members 11 takes the clips shown in Fig. 4 of the drawing and causes the parts 15 and 16 thereof to engage over the flanges of the respective floor members 11 and then passes through the said clips the plasterer's channels 12. He thereafter suspends from the plasterer's channels the clips shown in Fig. 5, and then causes the ends of the plaster boards 11 to engage with the various described fingers of the clip shown in Fig. 5. At the same time the clips shown in Fig. 6 are applied with respect to the plaster boards 17. This positioning of the plaster boards may be readily accomplished in a few moments' time and it is to be noted that should it be desired for any reason to disconnect a plaster board from the above described clips, the same can be readily done, thereby to gain access to the space below the floor slabs 10.

I am aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and I therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive, reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

What is claimed is:

1. As a new article of manufacture, a substantially U-shaped clip for building construction formed from a single piece of wire, said clip having vertically disposed parallel arms connected at their bottoms by a cross-piece arranged at right angles to said arms, said cross-piece being adapted to support a plasterer's channel, said arms terminating at their tops in horizontally arranged pairs of sinuous U-shaped fingers for frictionally engaging over the lower flange of a floor beam, each of said fingers terminating in an elongated portion arranged in a plane below said fingers for engaging beneath the lower flange of a floor beam.

2. A clip for building construction formed from a single piece of wire shaped as a U in a vertical plane, with a U at the ends of each straight side, each located in a single horizontal plane and turning outwardly from the first U and an L being in a vertical plane at right angles to the plane of the first U at the outer end of each of the second mentioned U's, the length of the short bar of the L being substantially equal to the thickness of the flange of an I-beam upon which it is to be mounted and the depth of the first mentioned U being greater than the depth of the flange of the I-beam plus the depth of the member to be carried thereby, whereby the member to be carried will lie out of contact with the I-beam.

3. A clip for building construction formed from a single piece of wire shaped as a U in a vertical plane, with a U at the ends of each straight side each located in a single horizontal plane and turning outwardly from the first U, and an L being in a vertical plane at right angles to the plane of the first U, at the outer end of each of the second mentioned U's; all portions of the clip being out of frictional contact with any other portion thereof.

4. A clip for building construction formed from a single piece of wire shaped as a U in a vertical plane, with a U at the ends of each straight side, each located in a single horizontal plane and turning outwardly from the first U, and an L being in a vertical plane at right angles to the plane of the first U at the outer end of each of the second mentioned U's, the first mentioned U being so sized that the member to be carried thereby may be placed therein after the clip has been positioned upon its support.

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