No. 834,940. PATENTED NOV. 6, 1906.

G. H. SHERWOOD.

APPARATUS FOR CONSTRUCTING CEILINGS.

APPLICATION FILED FEB. 6, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

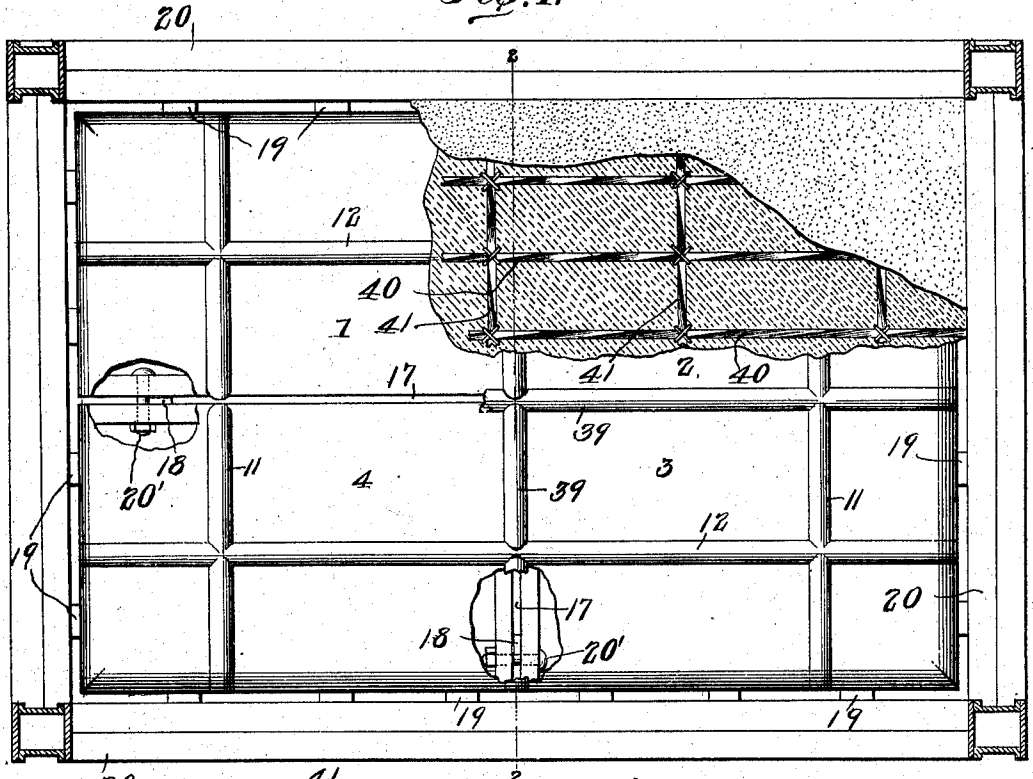
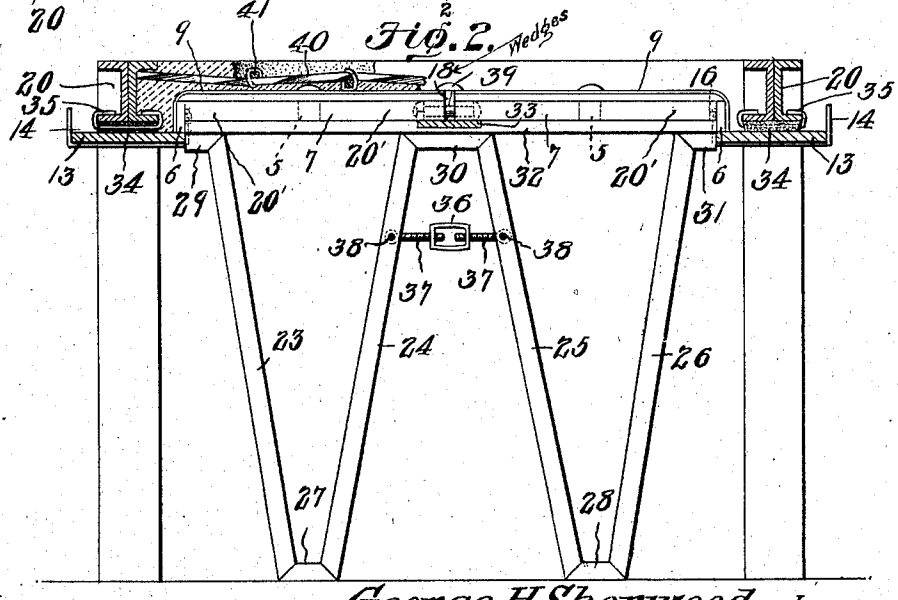


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

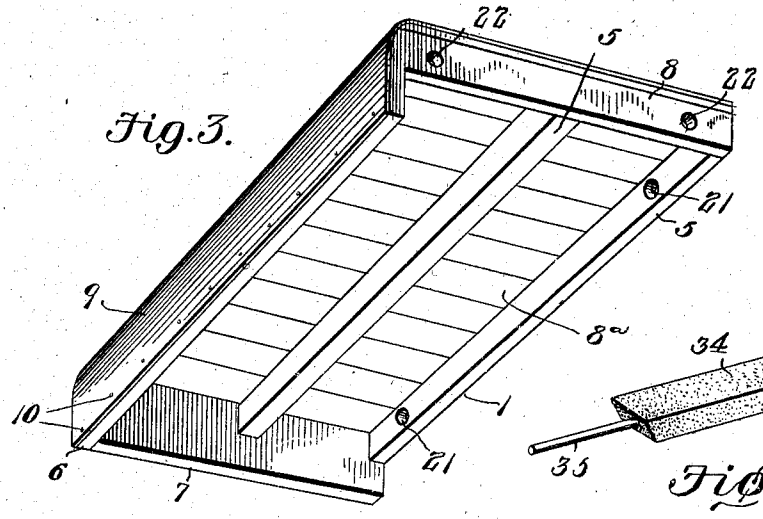
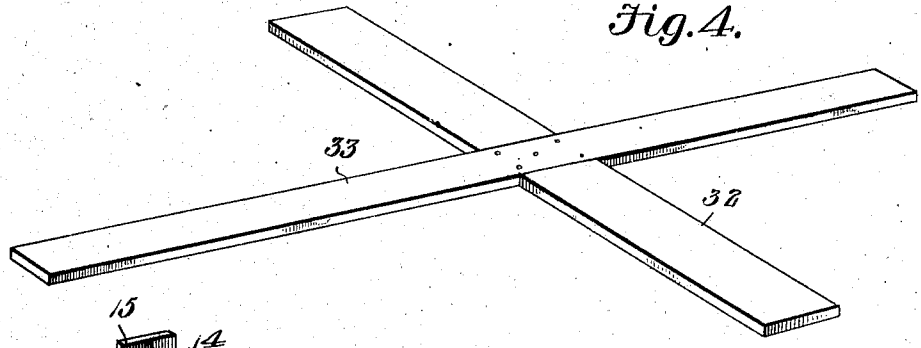


Fig. 8.

Fig. 4.



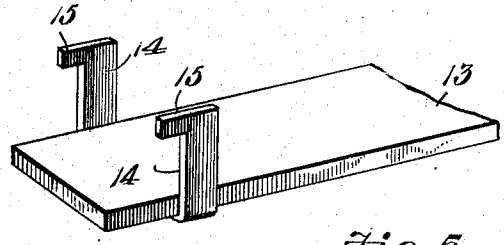


Fig. 5.

Fig. 6.

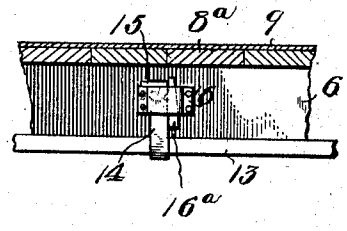
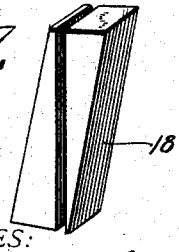


Fig. 7.



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APPARATUS FOR CONSTRUCTING CEILINGS.

No. 834,940. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed February 6, 1906. Serial No. 299,791.

To all whom it may concern:

Be it known that I, GEORGE HY. SHERWOOD, a citizen of the United States, residing at Dayton, in the county of Campbell and State of Kentucky, have invented a new and useful Apparatus for Constructing Ceilings, of which the following is a specification.

This invention relates to apparatus for constructing ceilings.

The object of the invention is in a ready and practical manner to improve the present methods in vogue of constructing ceilings in buildings employing structural iron, whereby the ceiling shall have a highly finished and ornamental appearance without mars and defects that will require the services of a plasterer to correct after the ceiling has been finished.

A further object is to simplify and improve the apparatus used in constructing a ceiling, whereby it shall be adapted for repeated use without deterioration, and in which damage resulting from being erected or taken down shall positively be prevented.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel method of and apparatus for constructing ceilings, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a plan view, partly in section, of a ceiling constructed in accordance with the present invention. Fig. 2 is a view in transverse section taken on the line 2 2, Fig. 1. Fig. 3 is a view in perspective, taken from the under side of one of the center-sections. Fig. 4 is a perspective detail view of a center-support. Fig. 5 is a perspective detail view of a portion of a temporary soffit-board used in carrying out the procedure. Fig. 6 is a detail view in elevation of a portion of the apparatus. Fig. 7 is a perspective detail view of a pair of wedges employed in setting the sections of the center. Fig. 8 is a perspective view of a soffit-board spacing-block used with the apparatus.

The improvement of the present invention resides more particularly in a novel form of center to be used in connection with a structural-iron building to produce a finished ceiling devoid of nail-holes or the like and capable, if desired, of forming ornamental panels at the time the ceiling is constructed.

The center consists of four sections 1, 2, 3, and 4, each a counterpart of the other, one of which is shown in detail in Fig. 3. While the construction therein shown is one that has been found thoroughly effective for the purpose, it is to be understood that the invention is not to be limited thereto, as changes in the arrangement and construction of the parts may be adopted if found necessary or desirable and still be within the scope of the invention.

As shown in the figure referred to, the section consists of two longitudinal beams 5, three facing-boards 6, 7, and 8, and lining-boards 8^a, that are secured to the beams 5 and facing-boards to form a rigid structure. The lining-boards are covered by a sheath 9, preferably of sheet-iron, which is bent down over the facing-board 6 and secured thereto by nails 10 or other equivalent forms of fastening devices. The sheath may be made of plain sheet metal; but for the purpose of imparting an ornamentation to the ceiling it is preferred to provide the same with corrugations or channels 11 and 12, that cross in this instance at right angles to each other, although they may be otherwise disposed, and in addition to forming well-defined panels in the plaster they also serve to reinforce the sheathing. These sections will be made of such size that four of them will constitute a center for a ceiling of ordinary size, and while it will generally be preferred to make them in quarters it will be obvious that where a ceiling is of extreme size they may be made in sixths, eighths, &c., to meet the requirements of the case.

As shown in Fig. 2, the sections are supported by soffit-boards 13, each of which carries a plurality of anchors comprising two spaced members 14, having outward-projecting terminals 15. These anchors are not secured to the soffits, but are held combined therewith, when the structure is in position, by keepers 16, that are secured to the inner surfaces of the facing-boards 6 and wedges 16^a, as shown in Fig. 6, the terminals 15 operating to hold the anchors against disconnection from the keepers. Each anchor is substantially a hollow rectangle in form, and the space between the members is of a size readily to accommodate the soffit.

As will be apparent, in order to permit positioning of the section, as shown in Fig. 1, there must be some play left between the opposed ends of the sections, and this will

leave longitudinal spaces 17 between the said ends. These spaces are adapted to be engaged by double wedges 18, which when positioned will operate to force the sections tightly against the spacing-blocks 19, that bear against the beams 20, so that when the cement or mortar is applied to form the ceiling it can also be applied to the beams, thereby providing a neat and finished effect. Of course, as will be apparent, when the cement reaches a block 19 it is removed and cement is applied in its place. When the sections are assembled, as shown in Fig. 1, bolts 20′ are passed through pairs of openings 21 in the beams 5 and through openings 22 in pairs of the facing-boards 8, as shown in Fig. 3, thereby firmly assembling the sections.

The means for holding the sections in horizontal plane consists in this instance of four spring-beams 23, 24, 25, and 26, two foot-blocks 27 and 28, and three head-blocks 29, 30, and 31. The terminals of each of the spring-beams are beveled in the same direction, while the terminals of the foot-blocks and head-block 30 are beveled in opposite directions. The head-block 30 engages the center support, which comprises two beams 32 and 33, disposed at right angles to each other and properly secured together by bolts or the like at their point of intersection, the terminals of the beams being designed to engage with facing-boards 6 and 7, as clearly shown in Fig. 2. In order to permit the cement to pass around the under faces of the beams 20, spacing-blocks 34 are interposed between the under sides of the beams and the soffit-boards, as clearly shown in Fig. 2, these being composed of cement with a stout wire 35 combined with them to be bent around the bases of the beams, as shown in Fig. 2.

When the foot-blocks, spring-beams, and head-blocks are positioned as shown in Fig. 2, a turnbuckle 36 is connected with the beams 24 and 25, preferably in this instance by seating the ends of the screws 37 in orifices in the beams and securing them therein by pins 38. When the nut or turnbuckle is turned, the spring-beams 24 and 25 will be drawn toward each other, and thereby, through the coaction between the bevel-terminals of the head-block 30 and the beams, lift the sections and at the same time force the wedge to position.

When the sections have been properly adjusted, so as to occupy an exactly horizontal plane, strips of metal 39 of the same contour in cross-section as the channels 11 and 12 are placed over the spaces or slots 17 between the sections, thereby preventing the mortar or cement from escaping therethrough. When the section is thus positioned, the cement is applied, being spread over the section, and is secured by twisted cross-bars 40 and 41, that are disposed at right angles to each other in the usual manner. In order to hold the head-blocks 29 and 31 in operative position, these are lightly nailed to the cross-boards of the center-support and may readily be detached therefrom when the center is to be taken down. To dismantle the structure, it is only necessary to remove the anchors 14 from engagement with the keepers 16, when the soffit-boards may be readily lowered, after which the spring-beams are taken down, and upon the bolts 20 being removed the sections may be taken down one by one without injury.

It will be seen from the foregoing description that although the improvements herein defined are simple in character they will be found thoroughly practical for the purpose designed and will in a positive manner obviate certain difficulties heretofore inherent in centers of this character.

I claim—

1. A center comprising a plurality of sections, means for supporting said sections, soffit-boards located at the edges of the sections, eyes attached to the sections, anchors passing under said soffit-boards and engaging said eyes.

2. A center comprising a plurality of sections, means for supporting said sections, soffit-boards located at the edges of said sections, said sections having horizontally-disposed eyes, anchors passing under said soffit-boards and having at their ends lateral projections which pass through and extend above the upper edges of said eyes, and wedges interposed between the rear edges of said anchors and said eyes.

3. A center comprising a plurality of sections, means for supporting said sections, soffit-boards attached to the edges of said sections, and wedges interposed between the inner opposite edges of said sections.

4. A center comprising a plurality of sections, means for supporting said sections, soffit-boards attached to the edges of said sections, spacing-blocks detachably located above said soffit-boards.

5. A center comprising a plurality of sections, means for supporting said sections consisting of a plurality of spring members, head and foot blocks with which the terminals of the said members coact, and a turnbuckle coacting with two of the members to effect adjusting of the sections.

6. A center comprising a plurality of sections, each having its upper side provided with panel-forming ribs, wedges adapted to engage the opposed edges of the sections, a center-support embodying cross members adapted to underlie the meeting edges of the sections, a head-block carried by the support, a plurality of spring members, head and foot blocks with which the terminals of the said members coact, and a turnbuckle coacting with two of the members to effect adjusting of the center-support.

7. A center comprising a plurality of sections, wedges adapted to engage the opposed edges of the sections, means for holding the sections assembled, a center-support comprising cross-timbers adapted to underlie the meeting edges of the sections, a head-block carried by the support, a plurality of spring members, head and foot blocks with which the terminals of the said members coact, a turnbuckle coacting with two of the members to effect adjusting of the center-support, soffit-boards coacting with the sections, and spacers coacting with the soffit-boards each consisting of a body of cement having embedded therein a wire, the terminals of which constitute attaching members.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE HY. SHERWOOD.

Witnesses:
JOHN MERGY,
CHARLES M. RAINS.