No. 776,344. PATENTED NOV. 29, 1904.

W. NIELSON.

CONSTRUCTION OF FALSE BEAMS, INTERIOR CORNICES, OR THE LIKE.

APPLICATION FILED APR. 5, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

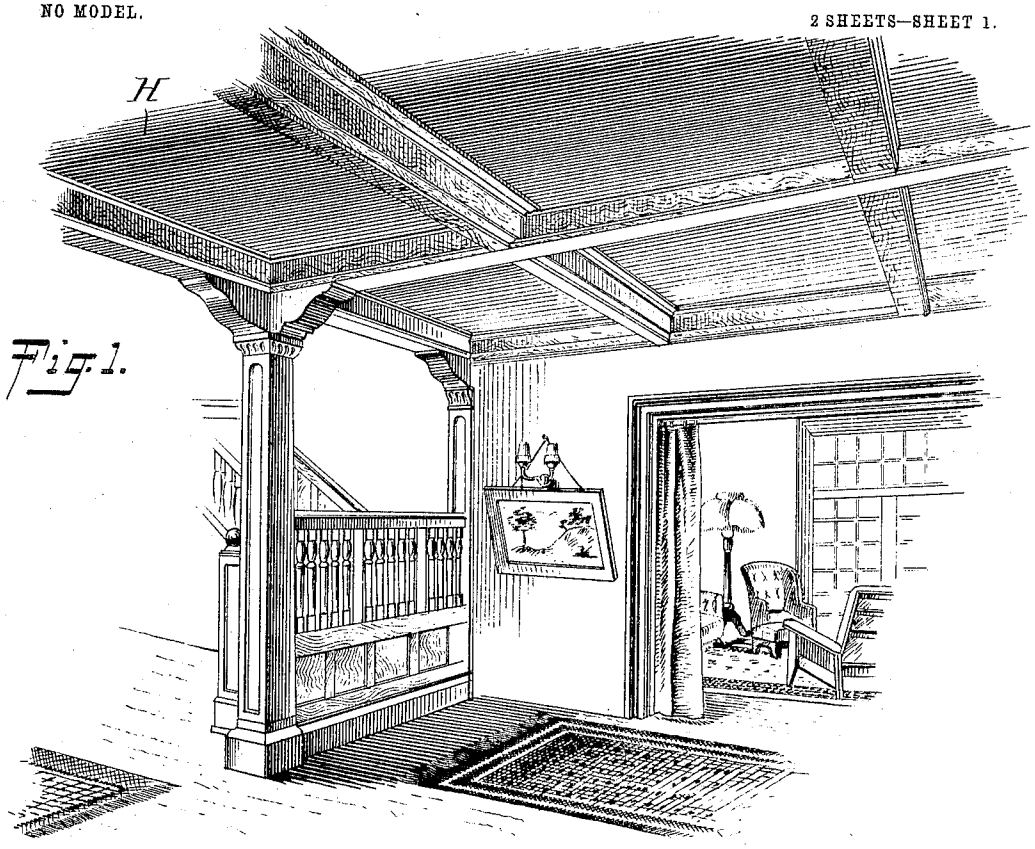
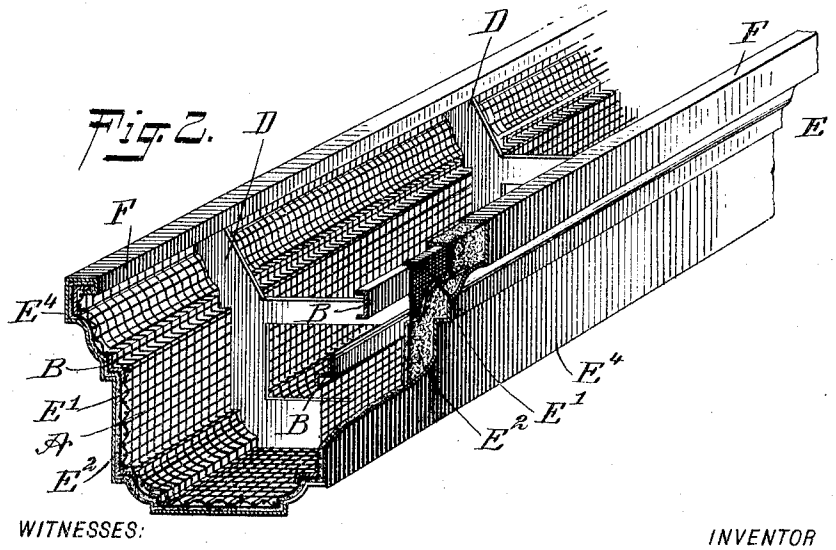


Fig. 2.



WITNESSES:

William A. Goebel

Fred J. Hoskins

INVENTOR

Walter Nielson

BY Munn & Co.

ATTORNEYS

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

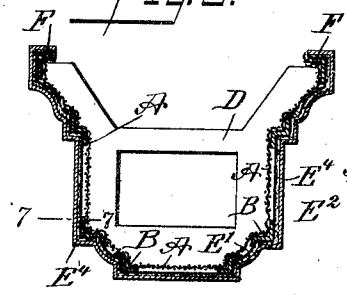


Fig. 4.

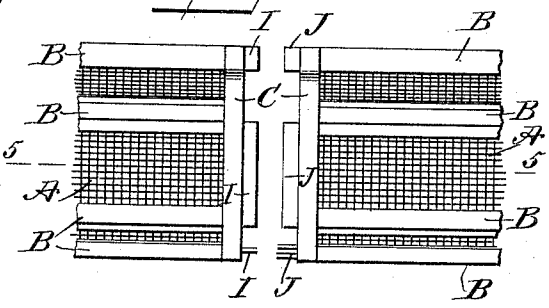


Fig. 6.

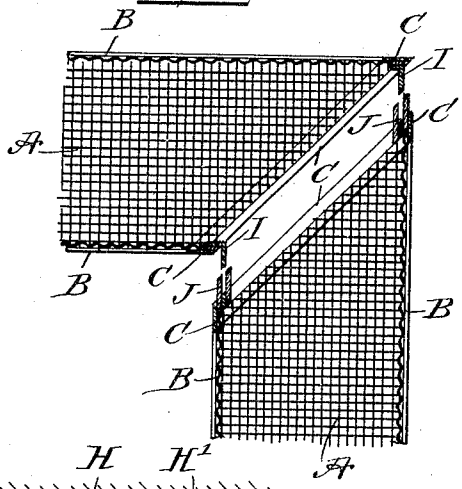


Fig. 5.

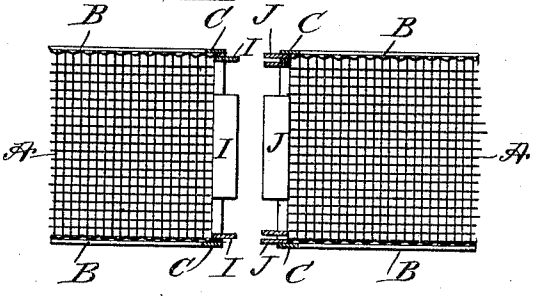


Fig. 7.

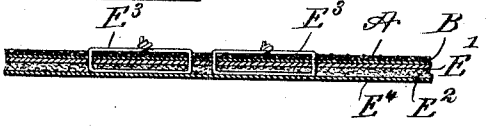


Fig. 8.

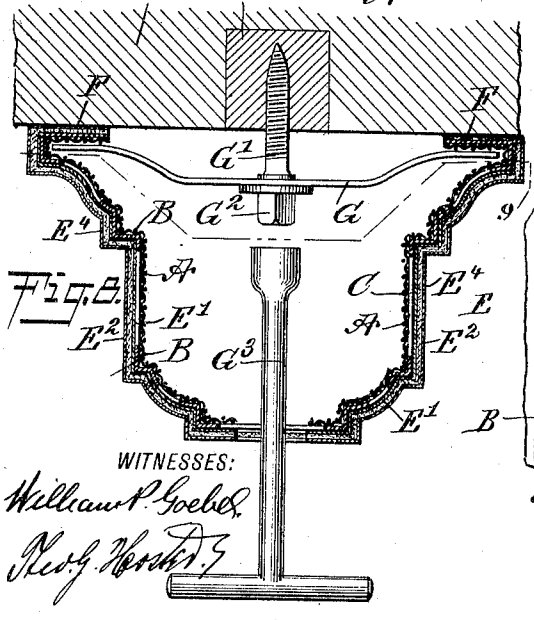
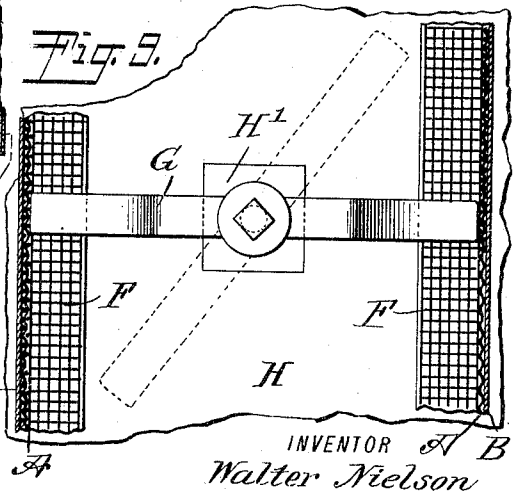


Fig. 9.



WITNESSES:

William P. Goebel

Rudy. Hoskins

INVENTOR

Walter Nielson

BY Munn & Co.

ATTORNEYS

PHOTO-LITHOGRAPHED BY SACKETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 776,344. Patented November 29, 1904.

UNITED STATES PATENT OFFICE.

WALTER NIELSON, OF NEW YORK, N. Y.

CONSTRUCTION OF FALSE BEAMS, INTERIOR CORNICES, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 776,344, dated November 29, 1904.

Application filed April 5, 1904. Serial No. 201,754. (No model.)

To all whom it may concern:

Be it known that I, WALTER NIELSON, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented new and useful Improvements in the Construction of False Beams, Interior Cornices, or the Like, of which the following is a full, clear, and exact description.

The invention relates to buildings; and its object is to provide certain new and useful improvements in the construction of false beams for ceilings, interior cornices, and like structures employed for embellishing the appearance of a room, the arrangement being such that the structure is fireproof, can be given any desired ornamental shape, can be readily placed and secured in position on the ceiling or wall of a room, and can be cheaply manufactured.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the interior of a room provided on its ceiling with false beams and with cornices constructed according to my improvement. Fig. 2 is an enlarged sectional perspective view of the improvement arranged as a false beam for ceilings. Fig. 3 is a cross-section of the same. Fig. 4 is a side elevation of the ends of adjacent longitudinal beam-sections to be joined. Fig. 5 is a sectional plan view of the same on the line 5 5 of Fig. 4. Fig. 6 is a sectional plan view showing two beam-sections to be joined at a right angle. Fig. 7 is an enlarged sectional plan view of the improvement on the line 7 7 of Fig. 3. Fig. 8 is an enlarged cross-section of the improvement, showing the means for fastening the structure in place; and Fig. 9 is an inverted sectional plan view of the same on the line 9 9 of Fig. 8.

In decorating rooms use is frequently made of false beams attached to the ceiling to give the room a substantial appearance, the false beams being usually made of wood or plaster-of-paris, and are consequently very heavy, although they have no load to sustain, and in addition are expensive to make. With my improvements, presently to be described, the false beams can be cheaply constructed and given any desired ornamental appearance, and the beams can be readily fastened in position without the aid of skilled labor, and as the beams are exceedingly light they can be easily handled and are in addition fireproof.

In the following description of the improvement a false beam is described in detail; but I do not limit myself to a false beam, as interior cornices and like structures may be made according to my invention.

The false beam or like structure is preferably made in sections of about two or more feet in length, and each section consists of a skeleton A, preferably made of wire-cloth bent to completely conform in cross-sectional outline to the cross-section of the structure to be made, and this wire-cloth skeleton A is reinforced lengthwise by sheet-metal reinforcing-strips B and transversely by sheet-metal binding-strips C, preferably located at the ends of the skeleton A. The sheet-metal reinforcing-strips B are preferably located at the angles of the wire-cloth, so as to render those angles exceedingly sharp and smooth, it being understood that the wire-cloth, as a rule, cannot be bent into such sharp angles as is desirable. The reinforcing-strips B are in the form of angle-irons, channel-irons, S-irons, ogee-irons, and the like, and are sharply shaped in cross-section to conform to the shape of the corners and edges which they represent on the structure, and as the outer faces of the strips are smooth it is evident that the finished structure shows sharp well-defined corners and edges, as will be readily understood by reference to Figs. 1, 2, 3, and 8.

The reinforcing-strips B as well as the binding-strips C are located on the outer face of the skeleton A, and by the use of the said strips the wire-cloth is prevented from being drawn out of shape, besides furnishing smooth corners or angles, as above mentioned. In addition the hollow or trough-like skeleton A is reinforced at the inside by transverse stays D, preferably made of sheet metal and

conforming to the inner surface of the skeleton A to assist in maintaining the shape of the skeleton. As illustrated in the drawings, the stays D are spaced apart, and the stays are preferably located at or near the ends of the skeleton and some between the ends; but the location and the number of stays is mainly governed by the size of the false beam to be represented—that is, for large beams more stays are employed than for smaller beams.

The skeleton A and the strips B and C are covered on the outside by a covering E, closely following the outer surface of the said skeleton and the strips, and this covering E consists, preferably, of a layer E′ of a woven textile fabric—such as buckram, cheesecloth, or the like—and a layer E^2 of a fireproof material, such as asbestos, superimposed on the layer E′. This covering may be fastened in place by pasting or gluing the layer E′ to the outer face of the skeleton A and its strips B C, but, if desired, other fastening means, such as loops E^3 or the like, (see Fig. 7,) passing through the covering and the meshes of the skeleton A, may be used. The covering E can be painted or otherwise coated or covered by a fabric material E^4, to be in harmony with the surrounding parts of the ceiling, and suitable ornaments may be attached to the exterior of the covering if desired.

In order to give a firm hold to the structure on the ceiling or other support, it is desirable to provide the top of the skeleton A with inwardly-extending flanges F, which form a rigid part of the structure, the flanges F being preferably formed by portions of the top longitudinal strips B or by extensions of the wire-cloth and by portions of the covering E or by all combined, as indicated in the drawings. It is understood that the inwardly-bent flanges F abut firmly against the face of the ceiling H, and the under sides of the flanges are adapted to be engaged by the free ends of an arm G, provided at its middle with a screw G′, screwing into the ceiling H or into a block H′, of wood, attached to the ceiling, so as to securely hold the structure in position on the ceiling. The screw G′ is provided with a polygonal head G^2, adapted to be engaged by a wrench or like tool G^3, inserted through an opening in the bottom of the structure to permit of turning the screw G′ and its arm G to move the latter from a longitudinal position into a transverse position for the free ends of the arm to engage the under sides of the flanges F to fasten the structure in position on the ceiling or like support. (See Figs. 8 and 9.) One or two such fastening devices may be employed for each section of a beam, it being understood that the arms G are attached to the ceiling previous to placing a section in position with the arms G standing in a longitudinal or oblique direction. (See dotted lines, Fig. 9.)

When the structure is placed in position on the ceiling, it is only necessary for the operator to apply the tool G^3 to the head G^2 and give a quarter-turn to the tool, so as to engage the free ends of the arm G with the under sides of the flanges F to fasten the structure in place. The tool G^3 is then removed and the small hole in the bottom of the structure is closed up by a piece of covering E or the like.

In order to join the sections to form a beam of any desired length, each section is provided at one end with projecting tongues I and at the other end with receiving-grooves J, so that the tongues I of one section interlock with the grooves J of the next adjacent section to render the beam continuous. For joining sections at an angle the adjacent ends of the sections are mitered, as illustrated in Fig. 6.

From the foregoing it will be seen that the structure is a shop product which has a cross-section, as called for by the plans of the architect, and the structure in its finished condition can readily be taken to the place of its use and quickly fastened in position.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. As a new article of manufacture, an interior structure such as a false beam for a ceiling, interior cornice or the like, consisting of a wire-cloth skeleton bent into trough-like form and shaped to completely conform in cross-sectional outline to the cross-section of the structure, and a fabric covering for the outer face of the said skeleton, following the shape of the said outer face.

2. As a new article of manufacture, an interior structure such as a false beam for a ceiling, interior cornice or the like, consisting of a wire-cloth skeleton shaped to completely conform in cross-sectional outline to the cross-section of the structure, and a fabric covering for the outer face of the said skeleton, following the shape of the said outer face, the skeleton being provided on its sides with inwardly-bent flanges adapted to rest on the support for the structure.

3. A false beam, interior cornice and like interior structure for buildings, made in sections formed of a wire-cloth skeleton bent into trough-like form and shaped to completely correspond in cross-sectional outline to the cross-section of the structure, the ends of adjacent sections being provided with interlocking tongues and grooves.

4. A false beam, interior cornice and like interior structure for buildings, provided with a wire-cloth skeleton shaped to completely correspond in cross-sectional outline to the cross-section of the structure, the wire-cloth of the skeleton being reinforced at the angles by sheet-metal angle-strips, to maintain the shape of the wire-cloth.

5. A false beam, interior cornice and like interior structure for buildings, provided with a wire-cloth skeleton shaped to completely cor-

respond in cross-sectional outline to the cross-section of the structure, the wire-cloth of the skeleton being reinforced at the angles by sheet-metal angle-strips, to maintain the shape of the wire-cloth, the said strips extending longitudinally throughout the length of the angles of the wire-cloth.

6. A false beam, interior cornice and like interior structure for buildings, provided with a wire-cloth skeleton shaped to completely correspond in cross-sectional outline to the cross-section of the structure, the wire-cloth of the skeleton being reinforced at the angles by sheet-metal angle-strips, to maintain the shape of the wire-cloth, the said strips extending longitudinally throughout the length of the angles of the wire-cloth, and transverse sheet-metal binding-strips passing over the wire-cloth, to bind the same between adjacent longitudinal strips.

7. A false beam, interior cornice and like interior structure for buildings, provided with a wire-cloth skeleton shaped to completely correspond in cross-sectional outline to the cross-section of the structure, the wire-cloth of the skeleton being reinforced at the angles by longitudinal reinforcing-strips and at the ends of the wire skeleton by transverse binding-strips.

8. As a new article of manufacture, an interior structure such as a false beam for a ceiling, interior cornice and the like, consisting of a wire-cloth skeleton shaped to completely conform in cross-sectional outline to the cross-section of the structure, and a fabric covering for the outer face of the said skeleton, following the shape of the said outer face, the fabric covering consisting of a layer of a woven-textile fabric adhesively connected to the wire-cloth and a layer of a fireproof material superimposed on the layer of textile fabric.

9. A false beam, interior cornice and like interior structure for buildings, provided with a wire-cloth skeleton shaped to completely correspond in cross-sectional outline to the cross-section of the structure, the wire-cloth of the skeleton being reinforced at the angles by longitudinal reinforcing-strips and at the ends of the wire skeleton by transverse binding-strips, and a fabric covering for the said skeleton, formed of a layer of cloth adhesively connected to the skeleton and a layer of asbestos superimposed on the layer of cloth.

10. A false beam, interior cornice and like interior structure for buildings, comprising a wire-cloth skeleton shaped to completely conform in cross-sectional outline to the cross-section of the structure, a fabric covering for the outer face of the said skeleton, following the shape of the said outer face, the skeleton being provided on its sides with inwardly-bent flanges adapted to rest on the support for the structure, and a manually-controlled fastening device held on the support for the structure and adapted to engage the said flanges on the under side.

11. A false beam, interior cornice and like interior structure for buildings, comprising a wire-cloth skeleton shaped to completely conform in cross-sectional outline to the cross-section of the structure, a fabric covering for the outer face of the said skeleton, following the shape of the said outer face, the skeleton being provided on its sides with inwardly-bent flanges adapted to rest on the support for the structure, and a pivoted arm within the skeleton and adapted to be turned to engage the under side of the flanges on both sides of the skeleton.

12. A false beam, interior cornice and like interior structure, comprising a wire-cloth skeleton, bent into trough-like shape to conform to the shape of the structure and provided with stays, and a fabric covering for the same, following the outer surface thereof.

13. A false beam, interior cornice and like interior structure, provided with a rigid wire-cloth skeleton bent into trough-like shape to completely conform to the cross-section of the structure, and a transverse stay in engagement with and following the inner surface of the skeleton.

14. A false beam, interior cornice and like interior structure, provided with a rigid wire-cloth skeleton shaped to completely conform to the cross-section of the structure, a transverse stay in engagement with and following the inner surface of the skeleton, and a fabric covering for the outer face of the skeleton, following the said outer face.

15. A false beam, interior cornice and like interior structure, comprising a rigid wire-cloth skeleton bent to conform to the shape of the structure and reinforced on the outside in a lengthwise and transverse direction by sheet-metal strips.

16. A false beam, interior cornice and like interior structure, comprising a rigid wire-cloth skeleton bent to conform to the shape of the structure and reinforced on the outside in a lengthwise and transverse direction by sheet-metal strips, the skeleton frame being interiorly reinforced by transverse stays.

17. A false beam, interior cornice and like interior structure, provided with a rigid wire-cloth skeleton shaped to completely conform to the cross-section of the structure and provided at the sides with integral inwardly-bent flanges adapted to rest on the support for the structure, and a transverse stay in engagement with and following the inner surface of the skeleton.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WALTER NIELSON.

Witnesses:
CHAS. E. POENSGEN,
GEORGE HULSBERG.