No. 833,263.

PATENTED OCT. 16, 1906.

T. E. TRACY.

FOLDABLE BOX BEAM.

APPLICATION FILED DEC. 19, 1905.

Fig 1

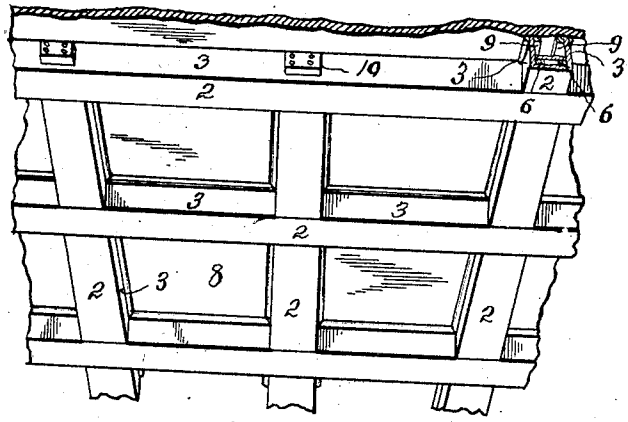


Fig 2

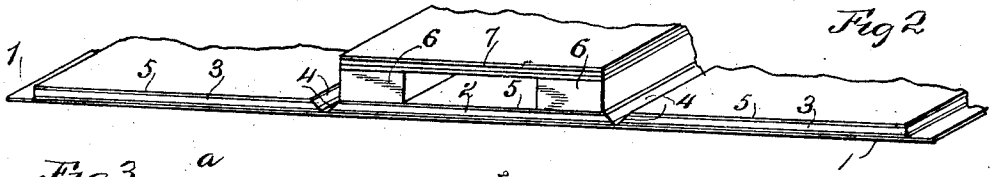


Fig 3

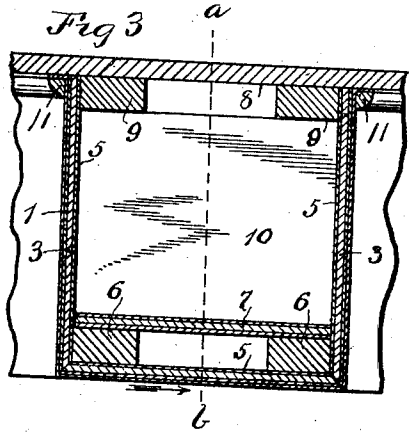


Fig 4

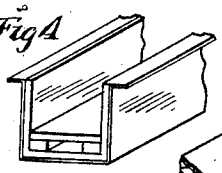


Fig 5

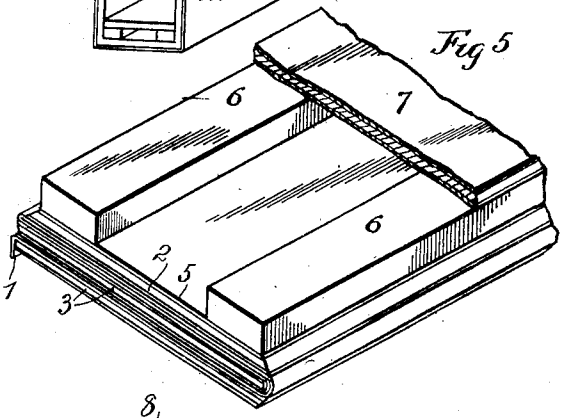


Fig 6

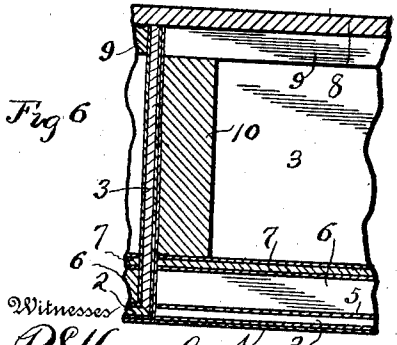
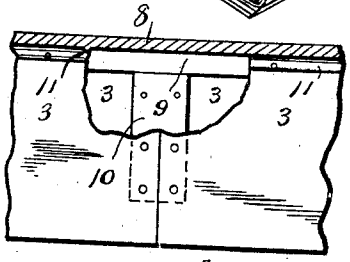


Fig 7



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS E. TRACY, OF KANSAS CITY, MISSOURI.

FOLDABLE BOX-BEAM.

No. 833,263. Specification of Letters Patent. Patented Oct. 16, 1906.

Application filed December 19, 1905. Serial No. 292,498.

To all whom it may concern:

Be it known that I, THOMAS E. TRACY, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented new and useful Improvements in Foldable Box-Beams, of which the following is a specification.

My invention relates to improvements in foldable box-beams.

The object of my invention is to provide a beam which may be folded in compact form for storing or shipping and which may be readily and securely fastened to a ceiling or wall for decorative effect.

In its preferable form the foldable box-beam comprises two side and a bottom or middle member, secured edge to edge parallel with each other upon one side of a sheet of flexible material, such as canvas, the canvas serving as an outer covering for the said members and providing means by which the side members may be hinged to the bottom member so as to be swung to a vertical or a parallel position relative thereto.

My invention provides, further, parallel strips mounted upon the ceiling, and to the outer edges of which the side members of the beam may be vertically secured.

My invention provides, further, a brace upon the upper side of the middle or bottom member of the beam against which the side members may bear when they are disposed in the upright position.

My invention provides, further, the covering of the inner sides of the bottom and side members with a covering impervious to moisture, thus preventing the warping of the members by reason of any moisture which enters the space inclosed by the members when they are mounted upon the ceiling.

My invention provides, still further, other novel features which are hereinafter fully described and claimed.

In the accompanying drawings, which illustrate my invention, Figure 1 is a perspective view of a section of a ceiling having secured thereto beams constructed in accordance with the principles of my invention, one of the beams being shown in cross-section. Fig. 2 is a perspective view of one of the beams with the side members outwardly extended in the horizontal position. Fig. 3 is a view showing, in cross-section, one of the beams secured to the ceiling. Fig. 4 is a perspective view of a portion of one of the beams detached from the ceiling and having the side members disposed vertically. Fig. 5 is a perspective view of a portion of one of the beams shown in the folded position. Fig. 6 is a vertical sectional view, taken on the dotted line *a b* of Fig. 3. Fig. 7 is a side elevation view showing abutting ends of portions of two beams secured to the ceiling, the ceiling being shown in vertical section and portions of the side members of the beams being broken away.

Similar characters of reference denote similar parts.

1 denotes a sheet of flexible material, preferably canvas, upon one side of which are secured flatwise, parallel with each other and edge to edge, a middle or bottom member 2 and two side members 3. The meeting edges of the side and bottom members are beveled, as indicated by 4, in a manner such that when the side members 3 are disposed vertically, as shown in Fig. 3, the adjacent beveled edges will bear tightly against each other. The inner sides of the members 2 and 3 are provided each with a covering 5, which is impervious to moisture. The members 2 and 3 are preferably formed each of two layers of veneering to render them stronger and less liable to warping. Upon the upper side of the bottom member 2, adjacent opposite edges and parallel therewith, are two longitudinal strips 6, against which the side members 3 bear, respectively, when the said side members are vertically disposed. Upon the upper sides of the said strips 6 is secured a flat board 7, also preferably composed of a plurality of layers of veneering. Secured to the ceiling 8 are two parallel strips 9, disposed apart from each other equidistant to the strips 6. The strips 6 and the board 7 serve as a brace against which the side members 3 may bear. The said members may be further braced by means of transverse rectangular blocks 10, disposed between the side members 3 and the strips 6 and 9.

The canvas sheet 1 extends beyond the outer edges of the side members 3, so that when the parts are assembled as shown in Fig. 3 the projecting edges may be turned laterally against the ceiling and secured thereto by means of longitudinal molding-strips 11, which are in turn secured upon the outer sides of the members 3, respectively, opposite

the strips 9. In a like manner the canvas strip 1 may be turned laterally at the ends of the members 3 and secured in a similar manner to the wall or beam against which said members bear at their ends. The foldable beams may be mounted upon any plain or plastered surfaces of ceilings or walls.

The canvas covering may be painted, papered, or decorated in any style desired. Any suitable means, such as by gluing or pasting, may be employed to secure the side and bottom members 3 and 2 to the canvas sheet. Where two beams join each other at angles, the side of one beam, as shown in Fig. 1, may have secured to it one of the rectangular blocks 10, fitted to the interior of the other beam between the strips 6 and 9, as shown in Figs. 3 and 6.

Beams constructed in accordance with the principles of my invention may, by reason of their lightness and the compact manner in which they may be folded, be readily packed and shipped from place to place at small expense.

Various modifications of my invention may be made without departing from its spirit.

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

1. A foldable box-beam comprising a longitudinal bottom member and two side members hinged to opposite edges of the bottom member respectively so as to be swung to positions substantially at right angles to the bottom member.

2. A foldable box-beam comprising three longitudinal members, two of which are hinged to opposite edges respectively of the third, the meeting edges being beveled so as to permit the two members swinging to positions substantially at right angles to the other member.

3. A foldable box-beam comprising a longitudinal bottom member and two side members hinged to opposite edges respectively of the bottom member, and a longitudinal brace secured to the upper side of the bottom member and disposed so as to have the side members bear against it when the side members are swung to a position substantially at right angles to the bottom member.

4. A foldable box-beam comprising a longitudinal bottom member having two strips secured upon its upper side adjacent opposite edges respectively, and two side members hinged respectively to opposite edges of the bottom member and adapted to be swung to positions bearing respectively against said strips.

5. A foldable box-beam comprising a longitudinal bottom member having two longitudinal strips secured to its upper side adjacent opposite edges respectively and having a longitudinal strip secured longitudinally upon the upper side of said strips, and two side members hinged respectively to opposite edges of the bottom strip and movable to positions in which they will bear respectively against the said two longitudinal strips.

6. A foldable box-beam comprising a longitudinal bottom member and two side members hinged respectively to opposite edges of the bottom member and adapted to be swung to positions substantially at right angles to the bottom member, the inner side of each of said members being covered with material impervious to moisture.

7. A foldable box-beam comprising a longitudinal bottom member having two longitudinal strips secured to its upper side adjacent opposite edges respectively and two side members hinged respectively to opposite edges of the bottom member and adapted to be swung to positions bearing against said strips respectively, each of said members on its inner side having a covering impervious to moisture.

8. A foldable box-beam comprising a sheet of flexible material and three flat longitudinal members secured edge to edge flatwise upon said sheet, the meeting edges of the members being beveled to permit the side members being swung to positions at substantially right angles to the middle member.

9. A foldable box-beam comprising a sheet of flexible material and three flat longitudinal members secured flatwise and parallel with each other upon one side of the sheet, the members being positioned on the sheet so that the two side members may be swung to positions substantially at right angles to and bearing against the opposite edges respectively of the middle member.

10. A foldable box-beam comprising a sheet of flexible material and three flat longitudinal members secured flatwise and parallel with each other upon one side of the sheet, the middle member having secured upon the side opposite the sheet adjacent opposite edges two longitudinal strips, the side members being positioned so that they may be swung to positions substantially at right angles to the middle member and bearing respectively against said strips.

11. A foldable box-beam comprising a sheet of flexible material and three flat longitudinal members secured flatwise and parallel with each other upon one side of the sheet, the side members being positioned so that they may be swung to positions substantially at right angles to and bearing against opposite edges of the middle member, the said members having each on the side opposite the sheet a covering impervious to moisture.

12. A foldable box-beam comprising a sheet of canvas having secured upon one side

flatwise, three parallel members positioned so that the side members may be swung to positions substantially at right angles to and bearing against the middle member.

13. A foldable box-beam comprising a sheet of canvas having secured upon one side three parallel members positioned so that the side members may be swung to positions substantially at right angles to and bearing against the middle member, the sides of said members opposite the sheet being covered each with a covering impervious to moisture.

14. A foldable box-beam comprising a sheet of canvas having secured upon one side three parallel members, disposed edge to edge, abutting edges being beveled so that the side members may be swung to positions in which the adjacent edges will bear against each other when the members are disposed with the side members substantially at right angles to the middle member.

15. The combination with the foldable box-beam comprising a longitudinal bottom member and two side members hinged respectively to opposite edges of the bottom member and adapted to be swung to positions substantially at right angles to the bottom member, of the ceiling, and means for securing said side members to the ceiling when said members are in said right-angled positions.

16. The combination with the foldable box-beam comprising a longitudinal bottom member and two side members hinged respectively to opposite edges of the bottom member, said bottom member having on its upper side two longitudinal strips against which the side members bear when the side members are swung to position substantially at right angles to the bottom member, of the ceiling, and means by which said side members are secured to the ceiling when in said right-angled positions.

17. The combination with the foldable box-beam comprising a longitudinal bottom member and two side members hinged respectively to opposite edges of the bottom member so as to be swung to positions respectively at right angles to the bottom member, the inner sides of said members having each a covering impervious to moisture, of the ceiling and means by which said side members may be secured to the ceiling when in said right-angled positions.

18. The combination with the foldable box-beam comprising a longitudinal bottom member and two side members hinged to opposite edges of the bottom member so as to be swung to positions substantially at right angles to the bottom member, of the ceiling having secured thereto two longitudinal strips, and means for securing said side members to said strips when the side members are in said right-angled positions.

19. The combination with the foldable box-beam comprising a longitudinal bottom member having upon its upper side two longitudinal strips and two side members hinged to said bottom member at opposite edges thereof and adapted to be swung to positions at right angles to the bottom member and bearing respectively against said strips, of the ceiling, and two strips secured to the ceiling parallel with the strips on the bottom member and having secured to their outer edges respectively the two side members when said side members are swung to the right-angled positions.

20. The combination with the foldable box-beam comprising a sheet of flexible material having secured upon one side flatwise and edge to edge three longitudinal parallel members, the side members being adapted to be swung to positions at right angles to the bottom or middle member, of the ceiling provided with means by which said side members may be secured to it when said side members are positioned at right angles to the bottom member.

21. The combination with the foldable box-beam comprising a canvas sheet covering the outer sides of three longitudinal parallel members disposed one bottom member between two vertical side members, the side members bearing against the bottom member, of the ceiling, and means for securing the side members to the ceiling with their upper edges adjacent the ceiling.

22. The combination with the ceiling having two longitudinal strips secured thereto, of the foldable box-beam comprising two side members secured in a vertical position longitudinally upon said strips respectively, the bottom member disposed parallel with said ceiling and secured between and adjacent the lower edges of the side members, and the canvas sheet covering the outer sides of the bottom and side members.

23. The combination with the ceiling having secured thereto two longitudinal strips, of the two side members secured respectively to the outer edges of said strips, the bottom member disposed parallel with the ceiling and secured between and adjacent the lower edges of the side members the canvas sheet covering the outer sides of the side and bottom members and extending laterally against the ceiling, and molding-strips secured to the laterally-projecting portions of the canvas sheet and against the side members and ceiling respectively.

24. The combination with the ceiling having secured thereto two parallel strips, of the bottom member having secured upon its upper side adjacent its edges respectively two strips, the two vertical side members secured respectively to the outer edges of the ceiling-strips and the strips on the bottom member,

the canvas sheet covering the outer sides of the side and bottom members and extending laterally against the ceiling at its upper edges, and the molding-strips secured upon the outer sides respectively of the side members and clamping said laterally-projecting portions of the canvas sheet to the ceiling.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

THOMAS E. TRACY.

Witnesses:
WARREN D. HOUSE,
HENRY F. ROSE.