No. 765,930. PATENTED JULY 26, 1904.

E. C. MAHONY.

PORTABLE WALL SECTION FOR HOUSE BUILDING.

APPLICATION FILED DEC. 29, 1903.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 2.

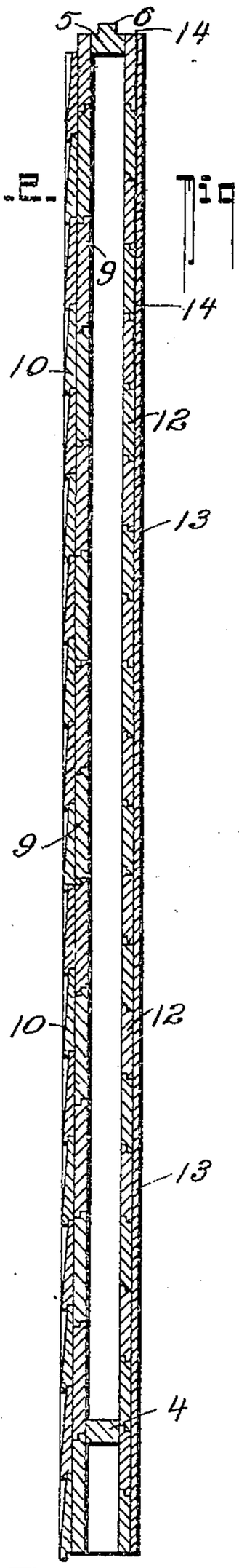


Fig. 1.

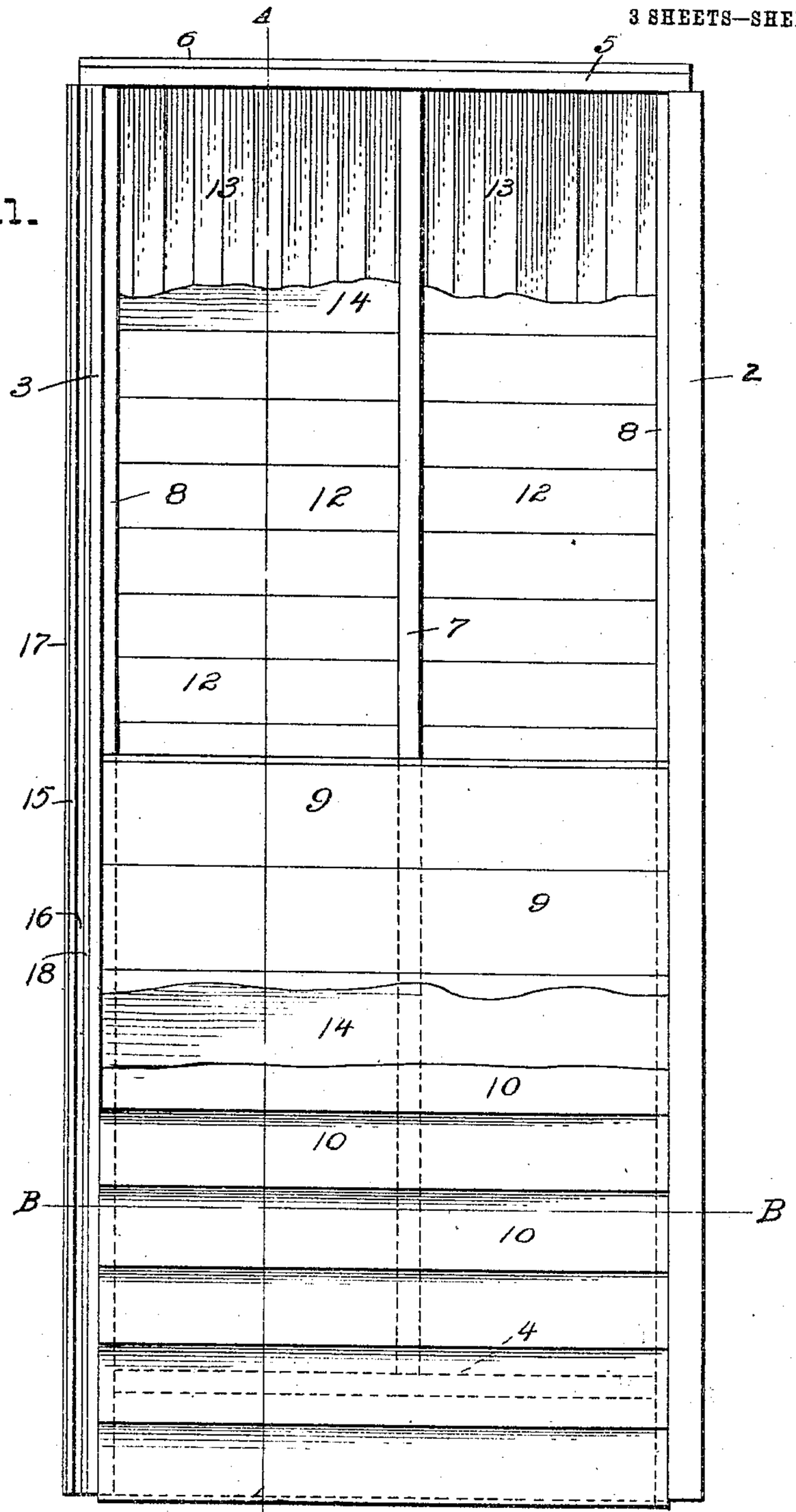


Fig. 5.

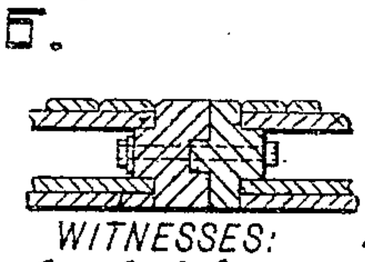
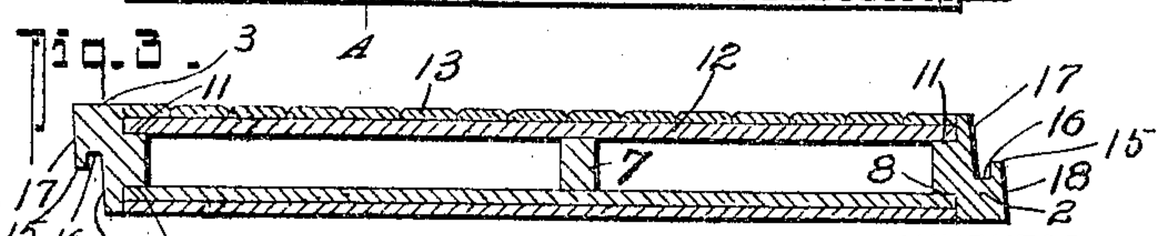


Fig. 3.



WITNESSES:

F. C. Gibson.

John T. Schott.

INVENTOR

Edwin C. Mahony.

BY

Fred G. Dieterich

ATTORNEY

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NO MODEL. 3 SHEETS—SHEET 2.

Fig. 4.

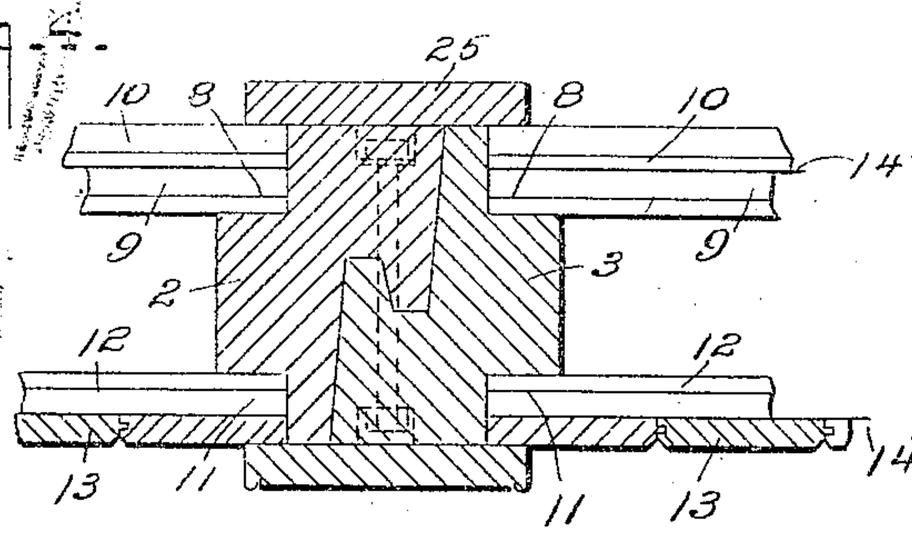


Fig. 5.

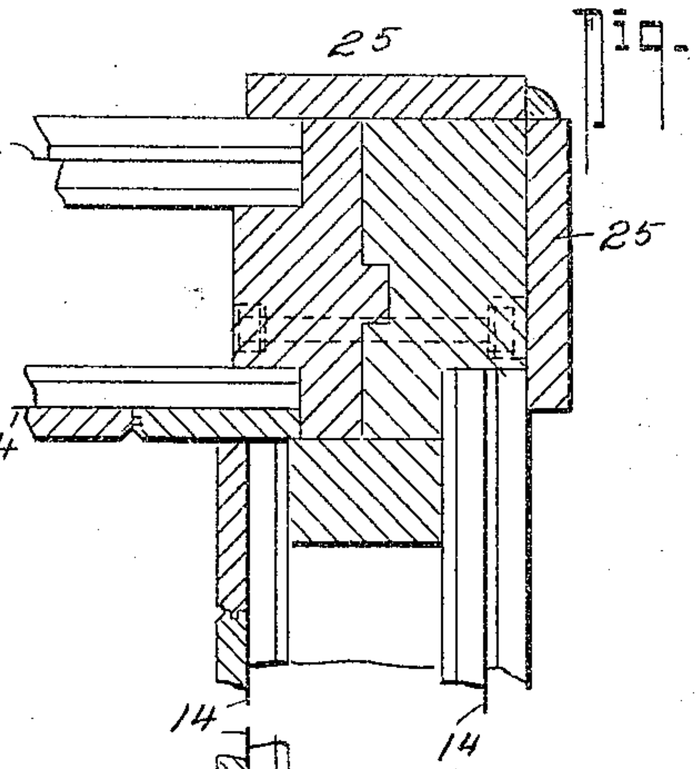


Fig. 7.

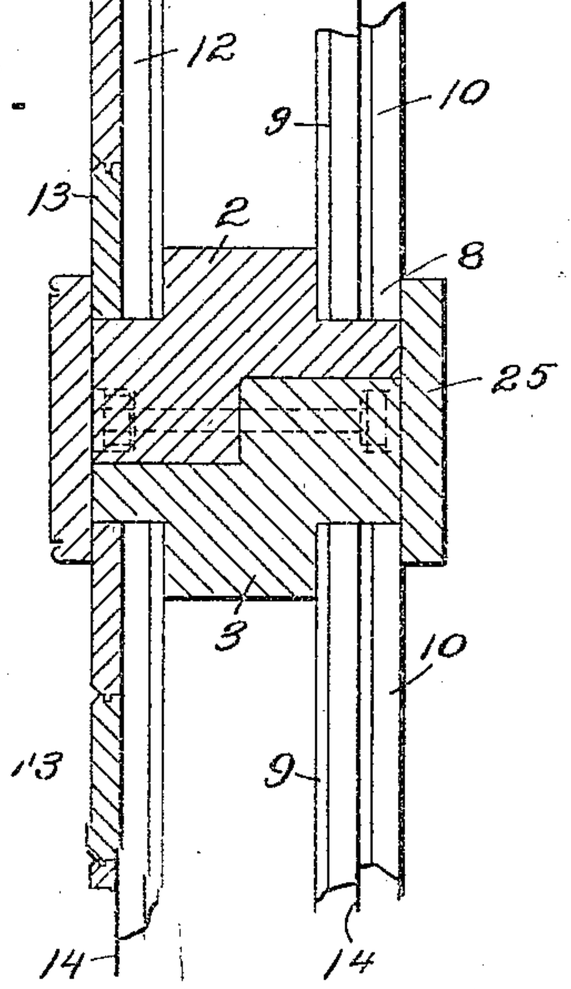
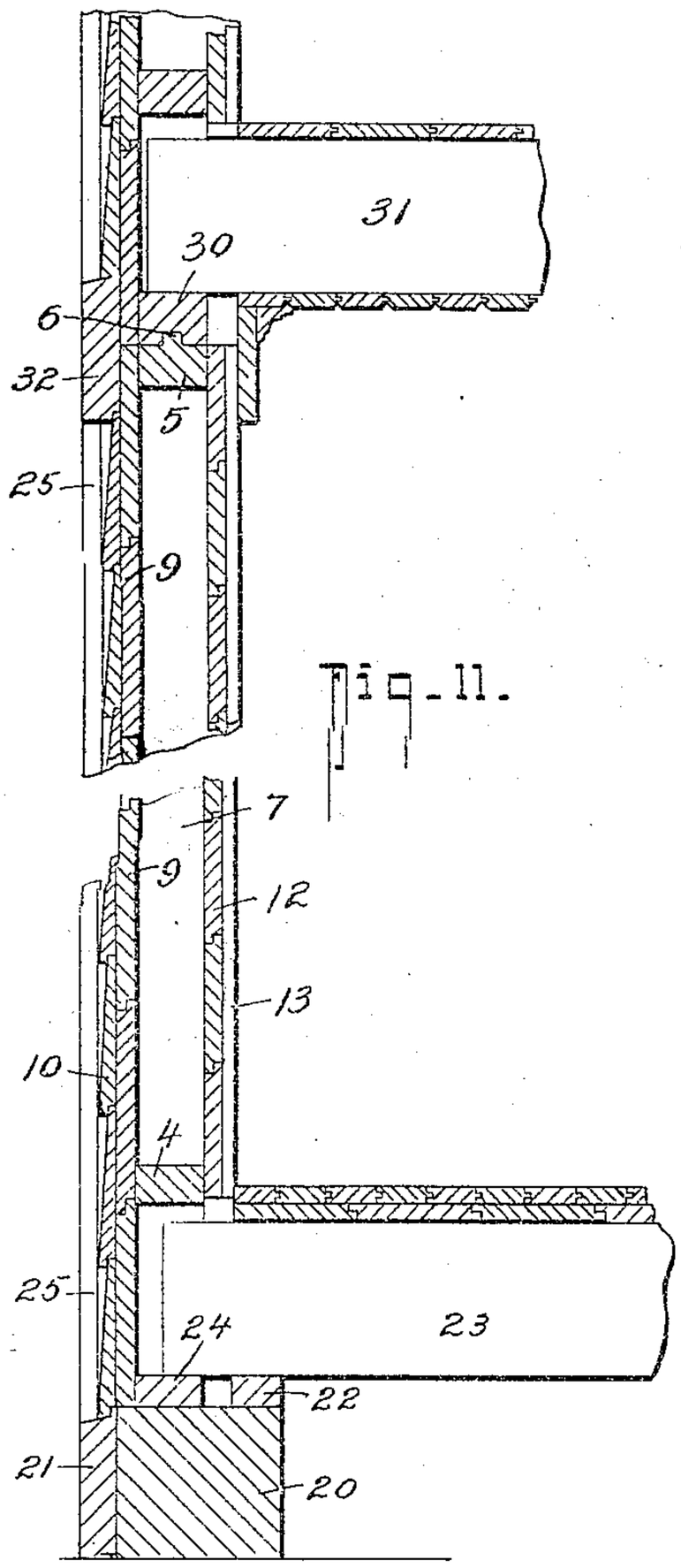


Fig. 11.



WITNESSES:

F. C. Gibson.

John T. Schutz.

INVENTOR

Edwin C. Mahony.

BY

Fred J. Dieterich,

ATTORNEY

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NO MODEL. 3 SHEETS—SHEET 3.

Fig. 9.

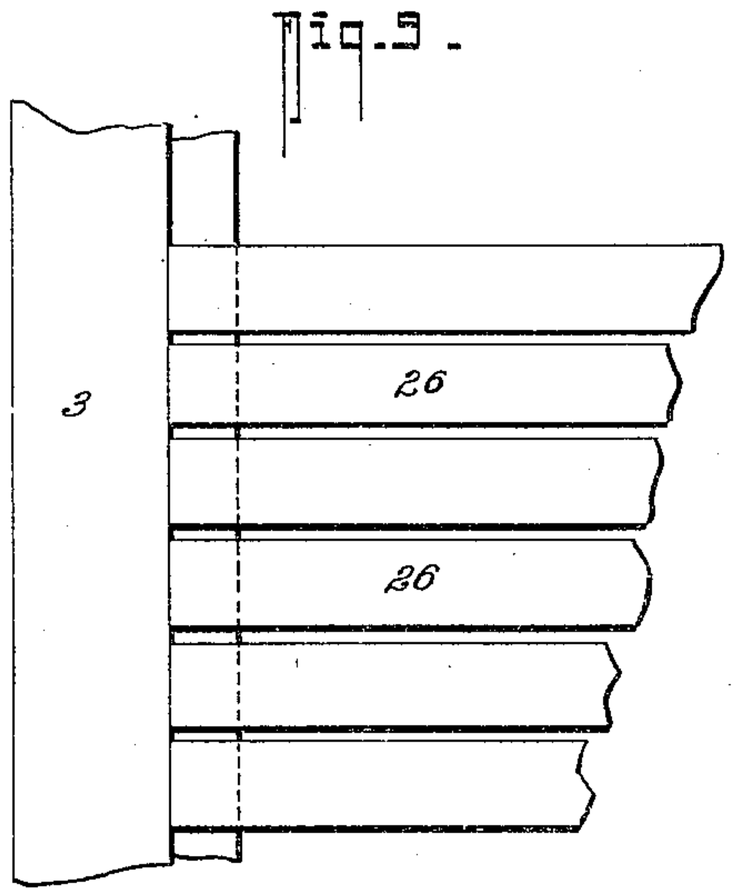


Fig. 10.

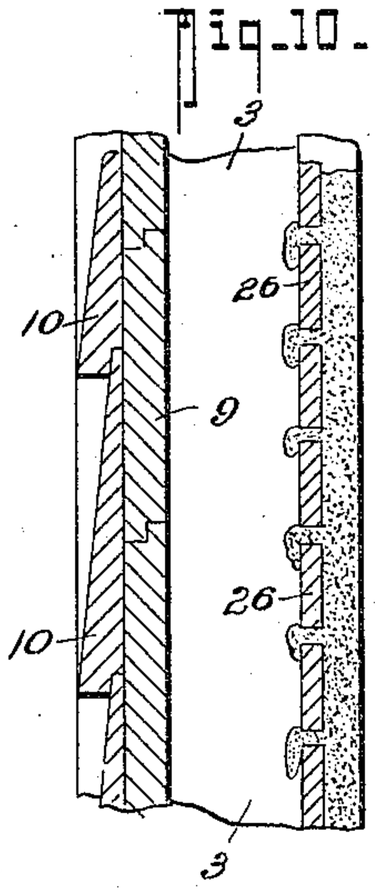
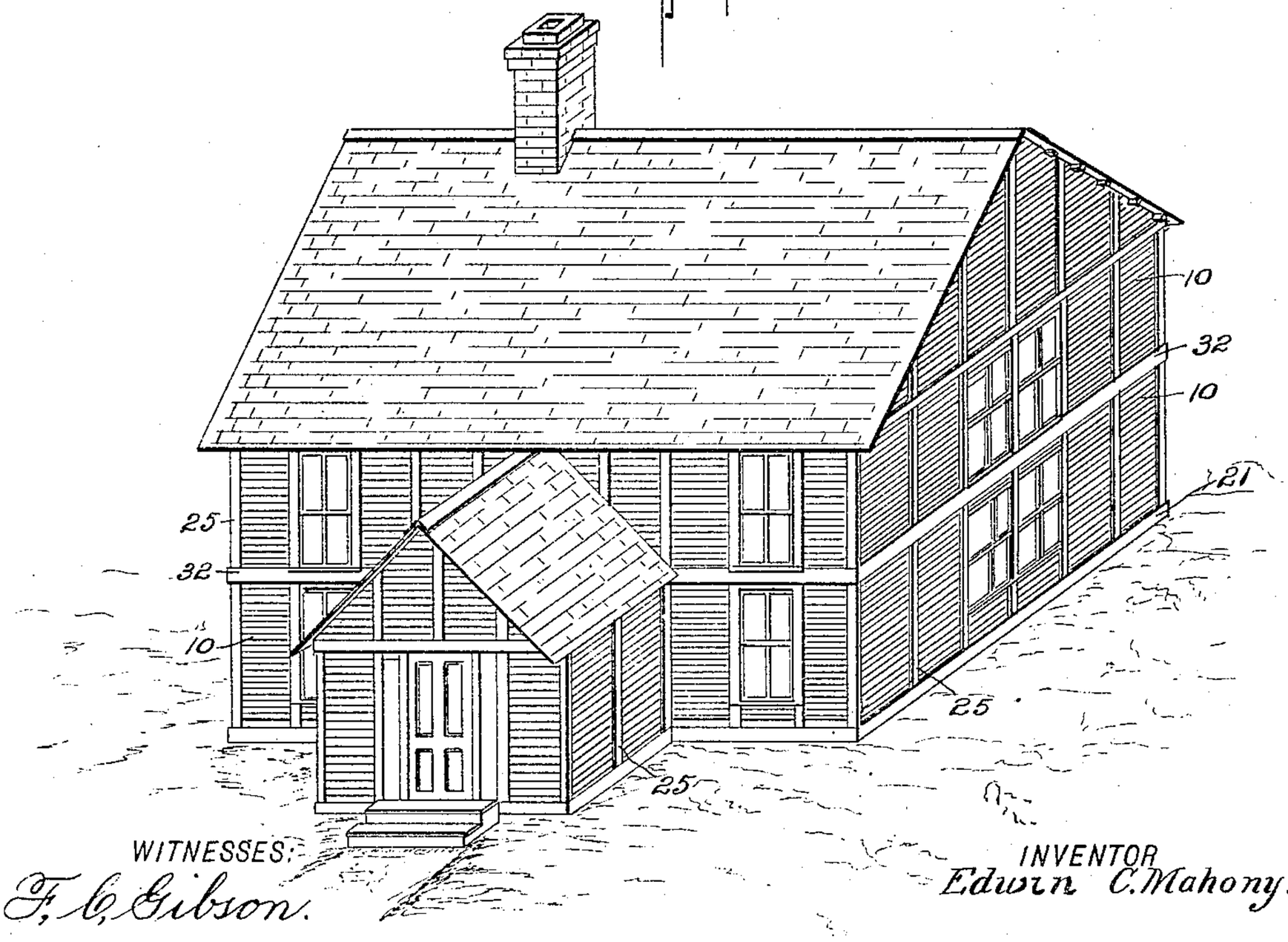


Fig. 8.



WITNESSES:

F. C. Gibson.

John T. Schrott.

INVENTOR

Edwin C. Mahony.

BY

Fred J. Dieterich

ATTORNEY

No. 765,930. Patented July 26, 1904.

UNITED STATES PATENT OFFICE.

EDWIN C. MAHONY, OF VANCOUVER, CANADA.

PORTABLE WALL-SECTION FOR HOUSE-BUILDING.

SPECIFICATION forming part of Letters Patent No. 765,930, dated July 26, 1904.

Application filed December 29, 1903. Serial No. 186,980. (No model.)

To all whom it may concern:

Be it known that I, EDWIN C. MAHONY, a citizen of the Dominion of Canada, residing at Vancouver, in the Province of British Columbia, Canada, have invented a new and useful Improvement in Portable Wall-Sections for House-Building, of which the following is a specification.

My invention relates to the construction of knockdown houses especially designed for the use of settlers in a comparatively new or undeveloped country, and is intended to meet the requirements of such a class by providing a framed house the erection of which does not require the service of skilled carpenters or tradesmen, but that can be put together by the settler himself in less time than it would take to build one in the usual manner and that when finished is superior in its weather-resisting qualities, appearance, and comfort to the best class of house as usually built by farmers or miners.

In the knockdown houses usually provided by manufacturers the walls are merely shells of single thickness, which while serviceable enough for purposes of shelter only are totally inadequate to afford proper protection as places of residence, particularly so where subject to extreme variations of climate.

My effort has therefore been to design a house structure in which as ample protection is afforded against severe weather as can be had in the best-built frame-house, and with this aim I construct the house-walls in sections of convenient size and weight for portability, each section being made of posts and rails having on the outer side weather-board siding on ship-lap with tar-paper between and on the inner side tongue-and-groove V-joint lining on ship-lap with paper between, so that an ample air-space is locked between the outer and the inner wall to afford protection against the most severe weather.

The stiles or posts of contiguous sections are joined by bolts in any manner that will afford a strong and weather-tight joint, and the lower ends of these posts are stepped into mortised sills extending the length and breadth of the house on suitable foundations and provided at their outer side with a water-table and on the inner side with a rest for the flooring-joists.

The wall-sections are of sufficient height to afford the necessary head-space in the room within, and their top rails are provided with a stout tongue to receive a corresponding groove in the roof-sill, or, if a double-story is desired, a groove in a bonding-sill which extends the length and breadth of the house and on which the ceiling-joists rest and are nailed, thus tying the whole wall structure strongly together. The door and window spaces can be readily allowed for in putting the sections together, and the corner-posts are secured by a suitable joint and held by bolts. I provide also a special floor construction adapted to the knockdown or sectional method of building and a ceiling similarly adapted. These latter have novel features apart from their association with the sectional wall design and shall be the subject of separate patent applications.

The construction of the sections and the manner of their connection and bond to form the walls of a house is fully set forth in the following specification and illustrated in the drawings which accompany it.

Figure 1 is the front view of a section detached; Fig. 2, a vertical section on the line A A in Fig. 1; Fig. 3, a horizontal section on the line B B in Fig. 1; Fig. 4, an enlarged detail cross-section of the preferred joint of the posts; Fig. 5, a similar view of the posts of the corner-sections. Figs. 6 and 7 illustrate alternative ways of jointing the section-posts. Fig. 8 is an isometric view of a house built in sections by my system. Fig. 9 is a detail rear elevation, and Fig. 10 is a detail vertical section of a lath construction in the inner wall. Fig. 11 is a detail sectional view hereinafter specifically referred to.

Each wall-section (see Figs. 1, 2, and 3) is constructed of two side posts 2 and 3, with a rail 4 toward the lower end and a rail 5 at the top.

The adjacent sides of the posts 2 and 3 are grooved, as at 8, to receive the outer wall-sheathing, which may be composed of an inner layer of boards 9, preferably of ship-lap,

and an outer sheathing 10, of bevel-siding, rustic, or other approved weather-boarding. On the inner side of the section the adjacent sides of the posts 2 and 3 are similarly provided with a groove 11 to receive the inner wall-covering, which may be composed of boarding 12, (ship-lap,) with a finishing of tongue-and-groove V-joint boards 13, or, if preferred, may be furnished with laths to receive a plaster finish after the house is erected. Paper may be laid between the boards 9 and 10 or 12 and 13, if found desirable, as indicated by 14 in Fig. 1.

The built-up section thus described forms the unit of the wall construction, and the contiguous posts of these sections may be secured together with any approved means of weather-joint. It is of course preferable that the posts interlock in some manner, which may be simply as illustrated in Figs. 6 and 7; but the form of joint which I preferably adopt is the one illustrated in Figs. 1, 3, and 4. In this joint the faces of the posts 2 and 3 of each section which come together are provided at the center of their width with opposing tongues and grooves 15 and 16, having slightly-angled sides, which angles are carried to the outer and inner faces of the posts, as at 17 and 18. A very efficient weather-tight lock-joint is thus formed, which may be secured by bolts and nuts from the wall-face, as illustrated, without the necessity of lining-boards being left off the sections to afford access for putting in bolts, as would be required were joints such as illustrated in Fig. 6 made use of. Where the width of the section so requires, an intermediate post 7 may be introduced in the frame to further support the boarding. In the application of these sections to form a house-wall a sill 20 is set on a suitable foundation provided, the outer face of which sill is furnished with a water-table 21, having a raised edge over which the weather-boarding laps, and along the inner side of the sill a continuous rail 22 is secured to afford a rest for the flooring-joists 23. The space between the water-table 21 and the joist-rest 22 has lengths of studding 24 nailed to it, with spaces between each length to receive the lower ends of the posts of the wall-sections.

After the house is erected cover-boards 25 are nailed over the vertical joints of the posts 2 and 3, both outside and in. These cover-boards are wide enough to cover the edges in their respective grooves 8 and 11 of the weather-boards 10 on the outside and of the V-joint lining-boards 13 on the inside. This not only covers up the joints and their fastening bolts or nuts and protects them from the weather, but has a pleasing appearance in dividing the wall-surface into panels.

The joints of the corner-posts of the wall-sections are made somewhat as illustrated in Fig. 5, with a stout tongue-and-groove connection secured together by bolts and nuts, the nuts being preferably nailed in recesses on the inner side of the post, so that the bolt can be tightened in the nut from the outside, cover-boards being placed over the external joints, as shown.

The top rail of each section is provided with a longitudinal tongue 6, and a stout longitudinal rail 30, provided with a groove to correspond with and fit over the tongue 6, extends along the length and breadth of the building and bonds the several sections together in one continuous wall.

As shown in Fig. 11, the ceiling-joists 31 rest on this rail 30, as also the rafters of the roof structure where a single-floor house only is required; but if a floor above is desired a second tier of sections is superposed on the rail 30 and the ceiling and floor joists 31 are stoutly nailed to the rail 30 and laterally to the posts 2, 3, and 7 of the section-frames. A bonding-rail similar to 30 being placed over the tongues 6 of the upper sections locks them together and at the upper side forms a sill to receive the ties and rafters of the roof structure.

At the junction of the two tiers of wall-sections a stout stringer 32, provided with a water-table, extends along the walls and covers the joint externally.

The form and proportion of the section-frames may be varied to suit the requirements of the house design. Thus door and window-frames complete with their accessories are furnished as sections in themselves, provided with similar means of connection to the other sections, so that no trouble will be experienced by the erector in introducing them where he desires in the house, and triangular sections adapted to the roof slope may be furnished for the gable ends of a house.

The particulars of further construction, although carefully worked out, are immaterial to the requirements of this application and need not be further described.

In Figs. 9 and 10 I have shown a substitute for the inner covering 13 in the nature of a lath-and-plaster construction.

I therefore declare my invention to be—

1. In a wall-section for a "knockdown" house; a frame comprising lateral posts longitudinally grooved down both edges of their adjacent sides having a rail between the lower ends of the posts, and a rail across the upper ends the upper rail having a longitudinal tongue along its upper side; an outer wall-sheathing in the outer grooves of the posts and an inner wall-lining in the inner grooves of the same; an interlocking joint-face on the lateral posts to engage those of the contiguous sections on each side and means for securing such.

2. As a wall-section for a "knockdown house," the side posts 2 and 3 having grooves

8 and 11, the exterior wall comprising the boarding 9 and the weather-boarding 10 adjacent thereto, the laths 26, the lower and upper rails 4 and 5 respectively, the rail 5 having a tongue 6, and the posts 2 and 3 having tongues and grooves 15 and 16 for the purposes specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN C. MAHONY.

In presence of—
ROWLAND BRITTAIN,
ELLICE WEBBER.