

J. K. JOICE.
WALL AND FLOOR PANEL,
APPLICATION FILED JAN. 19, 1918.

1,277,319.

Patented Aug. 27, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

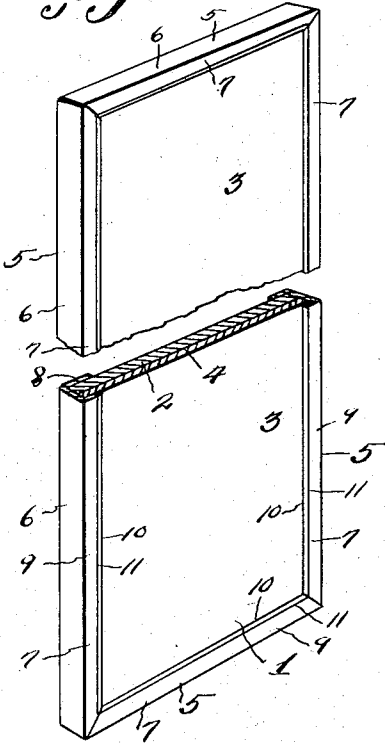


Fig. 3.

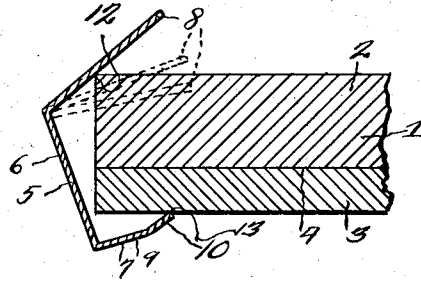


Fig. 4.

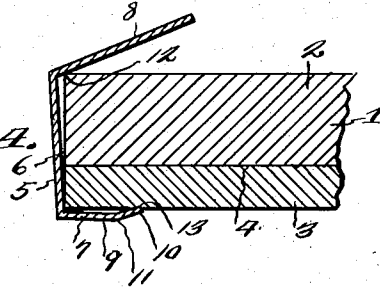


Fig. 2.

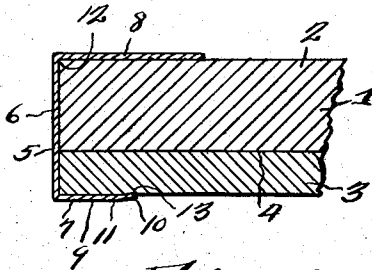
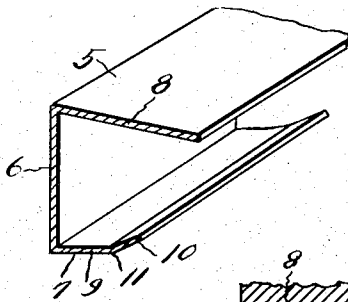


Fig. 5.

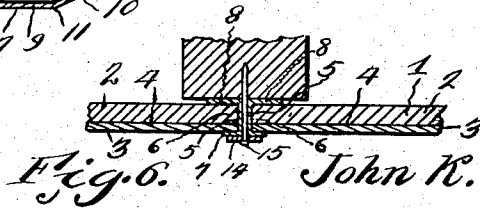


Fig. 6.

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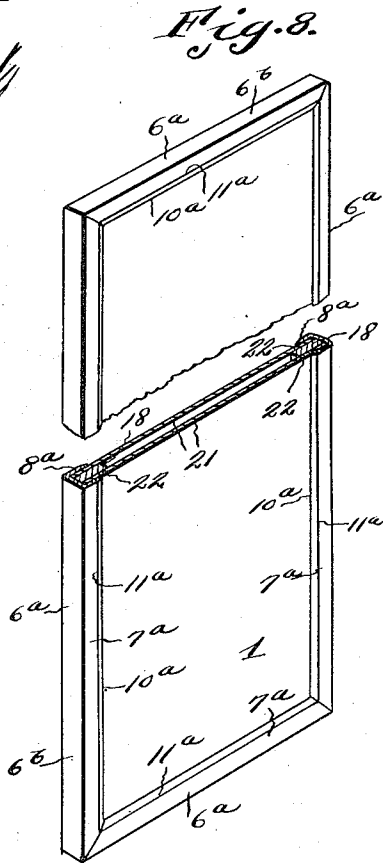
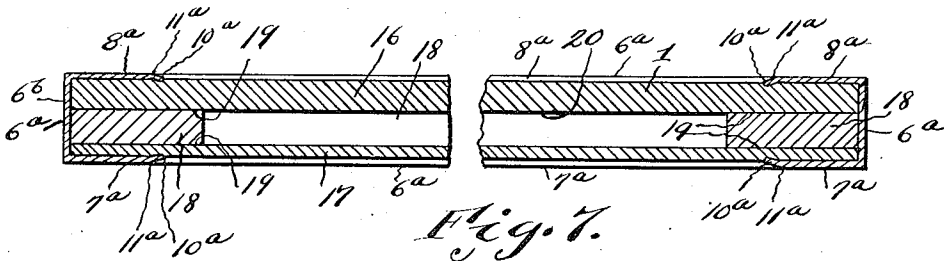
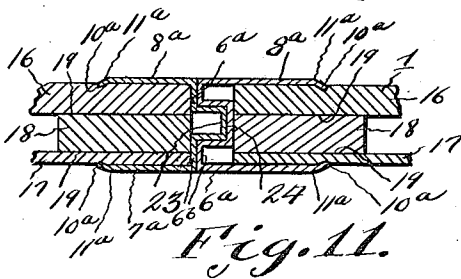
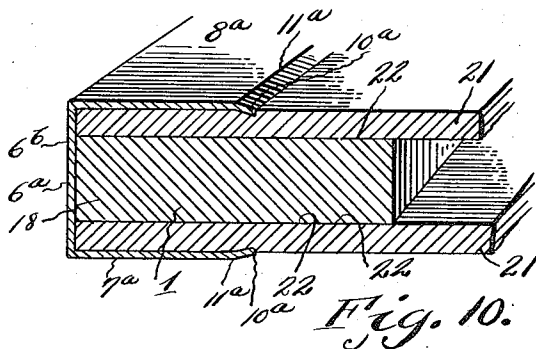
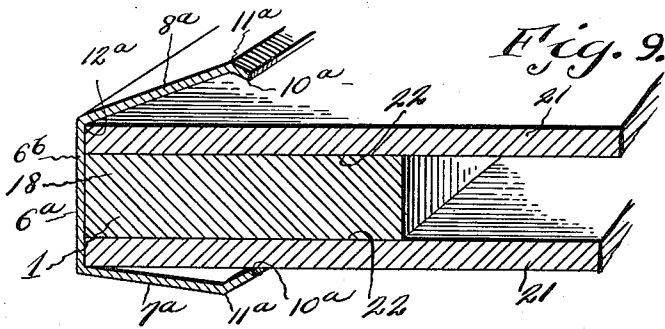
By *Philip A. H. Sewell*
his Attorney

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JOHN K. JOICE, OF CHICAGO, ILLINOIS.

WALL AND FLOOR PANEL.

1,277,319.

Specification of Letters Patent. Patented Aug. 27, 1918.

Application filed January 19, 1918. Serial No. 212,570.

To all whom it may concern:

Be it known that I, JOHN K. JOICE, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Wall and Floor Panels, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to wall and floor panels and more particularly to wall or floor panels for knockdown and portable buildings.

The object of the invention is to provide a wall panel, which will be compact and one in which battens are eliminated, thereby reducing the bulk of the panel. This is necessary for compactness when shipping.

A further object is to construct the panel of a series of layers of wood and fiber material, said fibrous material being known as wall board.

A further object is to glue or cement the layers of wood and fibrous material together, thereby forming a panel, then provide around the edges of the panel a metallic spring channel. This channel being so constructed, that it will be rigidly retained upon the edges of the panel by the spring clamping action of said channel.

A further object is to construct the spring channel so that one of its flanges will be at a right angle to the body portion thereof, a portion of said flange being bent upwardly near its end. The other flange being at an acute angle to the body portion so that when the channel is sprung over the edges of the panel, the spring action will force the inwardly bent end into biting engagement with one side of the panel preventing displacement of the channel when finally forced into position.

A further object is to provide a metal bound wall or floor panel.

A further object is to provide a nailless and screwless wall or floor panel having a metal channel around the same; said channel comprising a U shaped member having its flanges bent inwardly, near their ends, so that the inwardly bent portions will bite into the panel material when the flanges of the channel are clamped upon the edges of the panel by means of a clamping tool.

A further object is to provide a metal bound wall or floor panel, said binding comprising a channel having tongue and groove

means whereby the panels may be joined if desired.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the details of construction and combination and arrangement of parts hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein described can be made within the scope of what is claimed without departure from the spirit of the invention.

In the drawings:—

Figure 1 is a perspective view of one of the panels.

Fig. 2 is a detail sectional perspective view of a portion of the channel.

Fig. 3 is a sectional view of one edge of the panel, showing the channel in position to be sprung over one of the edges of the panel.

Fig. 4 is a view similar to Fig. 3, but showing the channel as it is about to reach its final position.

Fig. 5 is a sectional view through one of the edges of the panel showing the channel in its final and clamping position.

Fig. 6 is a sectional view through adjacent panels, showing the securing means for securing the panels to studding.

Fig. 7 is a sectional view through another form of my invention, showing an air space between the wall board, also showing a form of channel which gets its spring clamping action after the flanges of the channel have been clamped in a press or by other clamping tool.

Fig. 8 is a perspective view of another form of panel, in this case the panel consists of two pieces of wall board spaced by wooden strips.

Fig. 9 is a perspective detail sectional view of the channel shown in Fig. 7, the same being in position to be clamped upon the edge of a panel.

Fig. 10 is a perspective detail sectional view showing the channel securely clamped upon the edge of a panel.

Fig. 11 is a sectional view through adjacent edges of two panels showing tongue and groove means for joining the panels.

Referring to the drawings, 1 designates a wall or floor panel, which comprises a wooden section 2 and a fibrous or wall board section 3. These sections are securely glued or cemented together as at 4, thereby

providing a panel that will have the interior finish or ornamentation of the interior of a room and at the same time have the necessary strength to resist pressure and will not easily become warped or broken. Channels 5 are provided and are so constructed that they will spring over, and clamp the edges of the panel, thereby adding a finish to the panels and at the same time providing a clamp upon the edges of the board, which is necessary for the reason that if there is a tendency to separation of the wood and wall board, it usually starts at the edges of the panel. Each channel 5, comprises a body section 6, said body section having integral flanges 7 and 8. The portion 9, of the flange 7, is substantially at a right angle to the body section 6, and its end 10 is bent inwardly, as at 11, thereby providing a spring retaining rib, which bites into the wall board or wood when the channel is in position on the edge of the panel. The flange 8 is at an acute angle to the body member so that when the channel is sprung over the edge of the panel, the spring action thereof, in conjunction with the flange 7 and its biting rib 10 will securely clamp the edge of the panel and also be securely clamped upon the edge.

To place the clamping channel on the panel, the rib 10 is placed into engagement with the panel, then the arm 8, is sprung over the corner 12, as in Fig. 3, after which the channel is forced over the edge until the arm 8 is in engagement with the surface of the panel. When the channel is in final position, the bend at 11 is considerably reduced, but the rib 10 is in a depression 13 which it has formed, while being forced over the edge of the panel. The panels may be secured to studding; or when used as a flooring to joist by means of any conventional form of securing means such as a strip and nail 14 and 15.

Referring to Figs. 7 to 10 inclusive, the panel in this form is made with an air space between the wall board and wood or between the wall board where the wood is eliminated. In Fig. 7 the panel comprises the wooden section 16 and the fibrous or wall board section 17. These sections are glued or cemented to the wooden strips 18 as at 19, thereby forming a panel with an air pocket 20 so as to reduce the weight of the panel. In Figs. 8, 9 and 10 the panel comprises two sections of wall board 21, either or both of which may be waterproof. These sections 21 are glued or cemented to the wooden strips 18, as at 22. When the panel is used for flooring the wooden side is placed up so that the wear and strain will be upon the wood, but when used as a siding for walls the wall board is placed to the inside to give the room a finish.

The channel member 6^a in this form is not provided with an initial springing ac-

tion, but gets its spring clamping action when the flanges are clamped upon the edges of the panel by a press. The channel 6^a comprises a body portion 6^b and integral flanges 7^a and 8^a, which are bent inwardly as at 11^a, near their ends, thereby forming biting beads, which are adapted to engage and bite into the panel when the channel is pressed thereon. The channel has its flanges 7^a and 8^a, before placing on the panel, spread apart, and while in this condition as shown in Fig. 9, the rib 10^a is placed in contact with one of the surfaces of the panel and the flange 8^a forced over the corner 12^a until it assumes the position shown in Fig. 9. While in this position it is placed in a press and the flanges securely clamped upon the edge of the panel. The material of the channel being spring metal, the ribs 10^a will bite into the surfaces of the panel and the flanges of the channel forced into engagement with the panel, the ribs 10^a cutting their retaining grooves in the surfaces of the panel.

Fig. 11 is the same as Fig. 7 and the channel is of the same construction, with the exception, that, tongues and grooves 23 and 24 may be formed on the channels if desired.

The invention having been set forth what is claimed as new and useful is:—

1. A wall or floor panel comprising a series of layers of material having as a unitary part thereof a spring clamping binding around its edges.
2. A wall or floor panel comprising a series of layers of wood and fiber glued or cemented together and having as a unitary part thereof a spring clamping binding around its edges.
3. A wall or floor panel comprising a series of layers of material glued or cemented together and having as a unitary part thereof a spring clamping binding around its edges.
4. A wall or floor panel comprising a series of layers of wood and fiber having as a unitary part thereof, a spring binding channel around its edges, said channel being substantially U shaped in cross section and having resilient flanges for engaging the surfaces of the panel when forced on the edges of the panel.
5. A wall or floor panel comprising a series of layers of wood and fiber and having as a unitary part thereof a spring binding channel around its edges, said channel being substantially U shaped in cross section and having resilient flanges for engaging the surfaces of the panel when forced on the edges of the same, one of the flanges of the channel having an intumed portion for biting into the panel and forming a groove thereby preventing the easy removal or displacement of the channel.

6. A wall or floor panel comprising a series of layers of wood and fiber and having as a unitary part thereof a spring binding channel around its edges, said channel
5 being substantially U shaped in cross section and having resilient flanges for engaging the surfaces of the panel when forced into position on the edges of the same, said
10 flanges having inturned portions for biting into the panel and forming grooves thereby preventing easy removal or displacement of the channel.

7. A wall or floor panel comprising a series of layers of wood and fiber and having
15 as a unitary part thereof a spring binding channel around its edges, said channel being substantially U shaped in cross section and having flanges for engaging the surfaces of the panel, said flanges having in-
20 turned portions adapted to bite into the sur-

faces of the panel and form grooves when the U shaped channel is clamped upon the edges of the panel.

8. A wall or floor panel comprising a series of layers of wood and fiber and hav- 25 ing as a unitary part thereof a spring binding channel around its edges, said channel being substantially U shaped in cross section and having flanges for engaging the surfaces of the panel and tongue and groove 30 means carried by the channel for joining the edges of the panels when placed in position on a wall or floor.

9. A wall or floor panel comprising a series of layers of material and having as 35 a unitary part thereof a watertight spring binding around its edges.

In testimony whereof I hereunto affix my signature.

JOHN K. JOICE.