

Sept. 13, 1932.

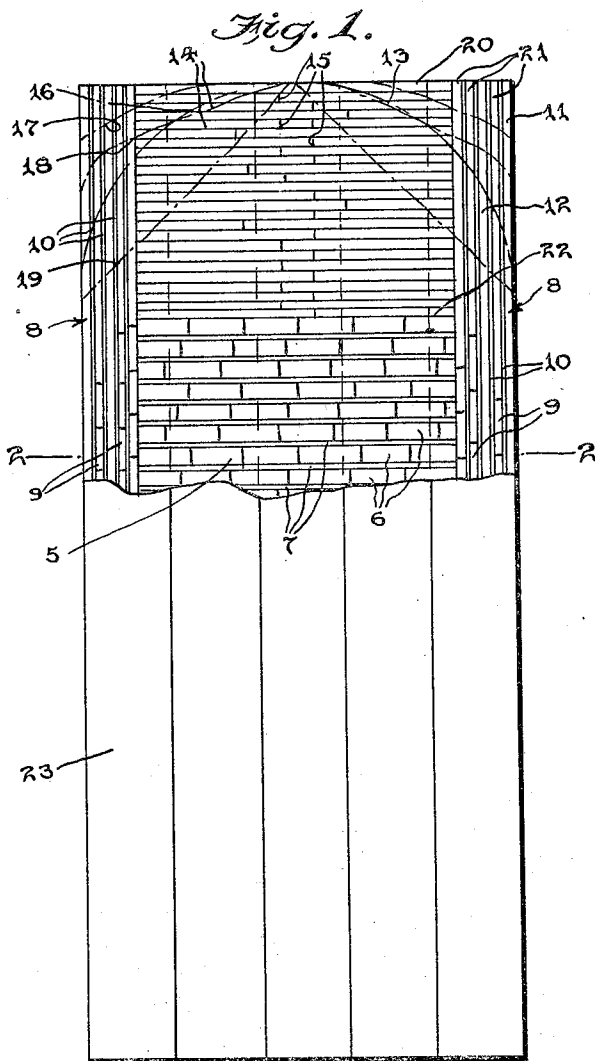
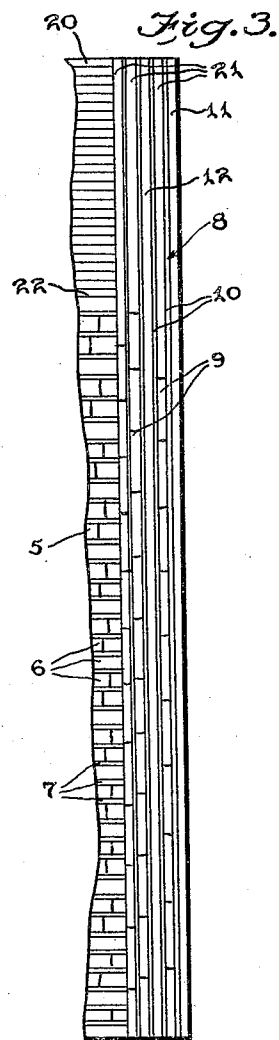
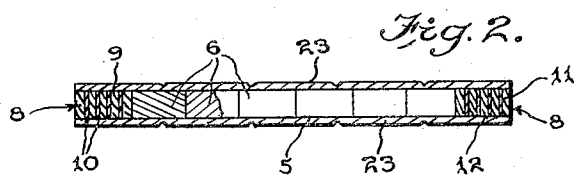
F. P. SIEVERS

1.876.772

COMPOSITE DOOR

Filed Aug. 18, 1930

2 Sheets-Sheet 1



Inventor
Frederic P. Sievers,

By

Havell + Havell
Attorneys

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Fig. 4.

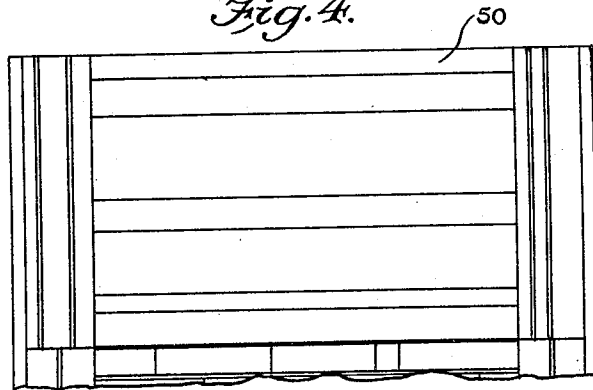


Fig. 5.

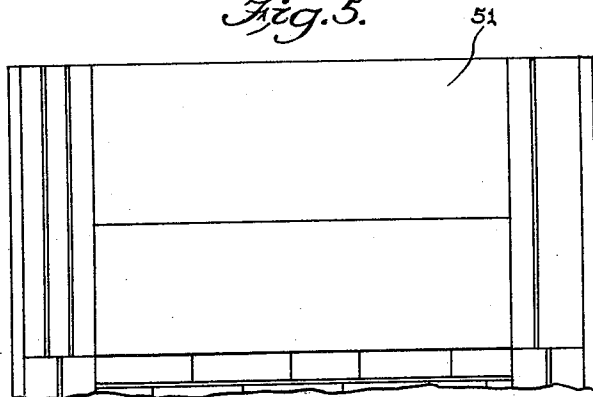
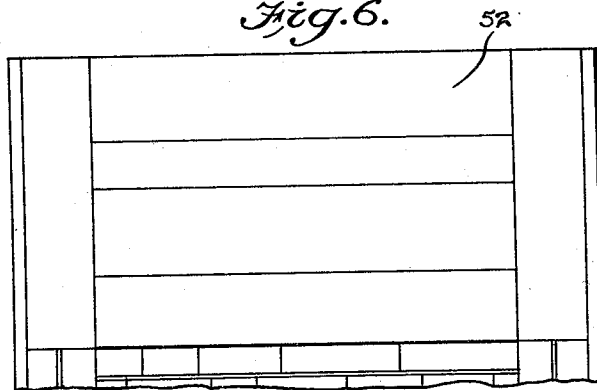


Fig. 6.



Inventor
Frederic P. Sievers

By

Havell & Havell
Attorneys

UNITED STATES PATENT OFFICE

FREDERIC P. SIEVERS, OF DUBUQUE, IOWA

COMPOSITE DOOR

Application filed August 18, 1930. Serial No. 476,113.

This invention relates to improvements in composite doors, and more especially to outside front doors of dwelling houses or the like.

At the present time, the top portions of such doors are cut into various shapes, such as a half circle, Tudor, Gothic heads, etc., and the primary object of the present invention is to furnish a composite veneered door having a head and side edge portions which may be cut to suit a particular door frame, without betraying the fact that the door is of composite type, and made up mainly of short length blocks or core.

In United States Patent 1,594,889, dated Aug. 3, 1926, a method is disclosed of manufacturing lumber from relatively short wood blocks or the like, and it is my intention to use such manufactured lumber for the main portion of the body of my door, as well as for the main portions of the side stiles of such door. A door of this general type is disclosed in U. S. Patent 1,662,151, dated March 13, 1928, but the door shown therein is not especially adapted for outside door purposes, owing to its panel effect, and furthermore, the top and side edge portions of that door are not constructed in accordance with my invention.

While my invention is especially adapted for use with doors made up of composite lumber, as set forth in those patents, it is manifest that the invention may be employed with doors having main portions constructed in other ways.

Another object of the invention is to provide an outside door having a head portion preferably including a multiplicity of horizontally disposed pieces of short length, the meeting ends of the same breaking joints, all joints arranged away from the side edges of the door, whereby, when the head is cut into any special shape to fit a particular door frame, such joints will not be penetrated or revealed.

A further object is to provide a door of this character, in which the facing veneers will be of the same class or kind of wood as the core from which the head portion of the door is made, so that when the head of the

door is shaped, the resulting cut edge or edges will have a neat appearance, matching the face veneers.

With the foregoing objects outlined and with other objects in view which will appear as the description proceeds, the invention consists in the novel features hereinafter described in detail, illustrated in the accompanying drawings, and more particularly pointed out in the appended claim.

Referring to the drawings,

Fig. 1 is a front elevation of a door in accordance with my invention, portions of the facing veneer being removed to reveal the internal or core structure of the door.

Fig. 2 is a horizontal sectional view on the line 2—2 of Fig. 1.

Fig. 3 is an elevation of a detail, showing one of the side stiles with the facing veneer removed.

Figs. 4, 5 and 6 are front elevations of the upper end portions of modified door cores.

In the drawings, the main portion of the core 5 of the door is preferably made of composite lumber manufactured in accordance with the above mentioned U. S. Patent 1,594,889. For example, it is made of wood blocks 6, which are arranged end to end in superposed rows, with intermediate wood strips 7 or ribbing between the same, there being a number of blocks in row, and the intermediate strips extending the full length of the rows, with the blocks and strips all properly glued together to form a composite wood panel or board which extends from one side stile of the door, to the other.

This composite board or panel has its edges abutting against, and glued to the inner edges of the side stiles 8, and each of these side stiles is composed mainly of composite lumber. For example, each one may consist of vertical rows of short length wood blocks 9, having the intermediate wood strips or ribbing 10 arranged between the rows, but each of these intermediate strips preferably extends the full height of the door.

The outer edge portion of each side stile is formed by a wood edge strip 11, which extends the full height of the door, and is of about the same thickness as each vertical

row of blocks 9, so that the side edges of the door may be trimmed for fitting purposes, without cutting into the block portion of the stile.

5 In a modification of the invention, one of the vertical rows of blocks in each stile, may be substituted by an intermediate wood strip 12 similar in construction to the strip 11, so that a side edge of the door may be ripped
10 along this intermediate strip to remove quite a thickness at a side edge of the door, to accommodate a much narrower door frame.

In accordance with the invention, the upper portion of the panel or body of the door,
15 as shown at 13, is made up of horizontally disposed lengths of core stock 15, each of which can be of more or less height than any of the blocks 5, and the ends of which abut near the central portion of the panel, as
20 shown at 15, whereby, when the door is cut at its top portion, as indicated by dotted lines 16, 17, 18 and 19, to accommodate door frames of various shapes, the strips 14 will be cut through without the end joints being exposed
25 or molested.

At the upper extremity of the panel, I prefer to use a top wood piece 20, which will extend the full width of the panel to provide a neat finish at the top edge of the door.

30 The upper end portions of the side stiles 8, in addition to the strips 10, 11 and 12, also preferably include vertical strips 21 which extend downwardly from top end, or not less than one foot eight inches, that is, below the
35 line 22 where the course of horizontal strips 14 ends, and as before indicated, all of these wood pieces are secured together by some suitable means such as glue, so that the core including the stiles and panel, is a unitary
40 structure.

To each side of the core, face veneer 23 is glued, and each sheet of veneer preferably covers an entire side of the door. Further-
45 more, the wood pieces 11, 12, 14, 20 and 21 are preferably of the same class of kind of wood as the face veneer, so that when the door is cut at its top, Gothic, peak head, half circle, etc., the whole top of the door, not
50 only the faces but edges included, will exhibit the same class or kind of wood. In other words, my special manner of forming the core portion for the head of the door, will permit the latter to be cut with various fancy
55 heads, as desired, and incidentally show hard wood on all exposed surfaces.

This design was originated in order to permit the dealer to order such doors in fairly large quantity for any one of such doors, while square cut at the beginning, can be very
60 readily, and at very little expense, be made to serve the purpose of many additional designs.

65 While I have shown the horizontal rail pieces 14 as made up of short lengths, with the joints breaking between the same, it will

be obvious that full length pieces may be used if desired, without going outside the scope of the invention.

Instead of having the small pieces in the head of the door of the same or similar wood, the door may be made by putting in a solid
70 rail of hard wood to match the face veneers, or even some similar kind or class of wood that would match the face veneers could be used. In Figs. 4, 5 and 6, I have shown embodi-
75 ments of doors in which the solid rails are designated respectively, 50, 51 and 52.

From the foregoing it is believed that the construction and advantages of the invention may be readily understood, and I am aware that various changes may be made in the details disclosed, without departing from the spirit of the invention, as expressed in the claim.

What I claim and desire to secure by Letters Patent is:

A door comprising a core including a panel and side stiles, the main portion of the panel and side stiles being formed of composite
80 lumber, the head portion of the panel being made up of a multiplicity of horizontally disposed rows of wood strips secured together, and the head portions of the side
85 stiles being made up of a multiplicity of vertically disposed wood strips secured together, face veneers covering the opposite sides of the core and secured to the latter, said strips and the face veneer being of the same class or
90 kind of wood, some of said horizontal strips being of less length than the width of the panel, and having their ends connected together and breaking joints at the intermediate
95 portion of the panel, and the majority of the vertical strips of each side stile being of a length only slightly greater than the head portion of the door.

In testimony whereof I affix my signature.
FREDERIC P. SIEVERS.

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