Feb. 11, 1958 J. W. HAYNES 2,822,870

CORE BLOCK DOOR CONSTRUCTION

Filed Oct. 5, 1954 2 Sheets-Sheet 1

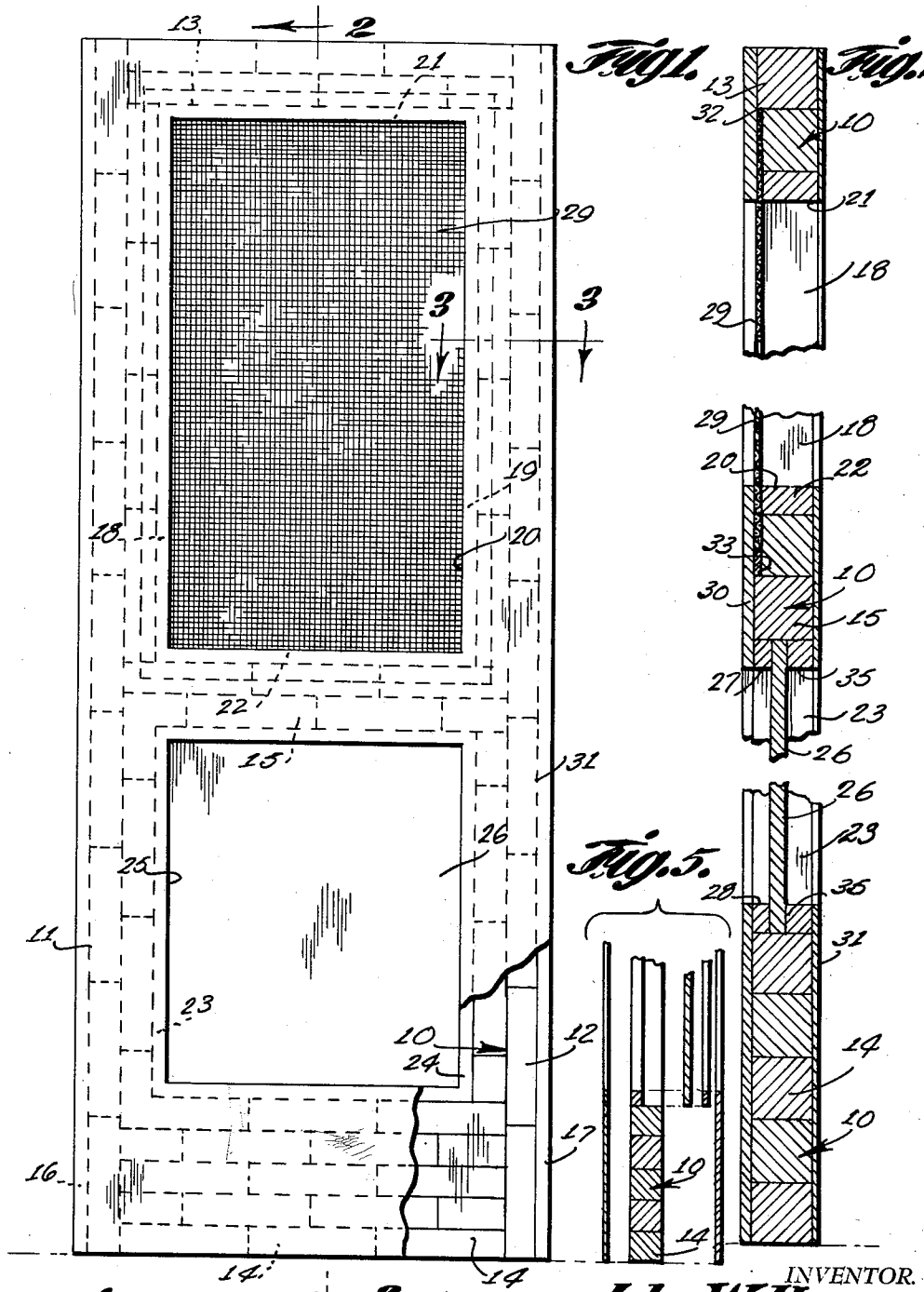


Fig. 1.

Fig. 2.

Fig. 5.

Fig. 3.

INVENTOR.
John W. Haynes
BY Victor J. Evans & Co.
ATTORNEYS

Feb. 11, 1958 J. W. HAYNES 2,822,870

CORE BLOCK DOOR CONSTRUCTION

Filed Oct. 5, 1954 2 Sheets-Sheet 2

Fig. 4

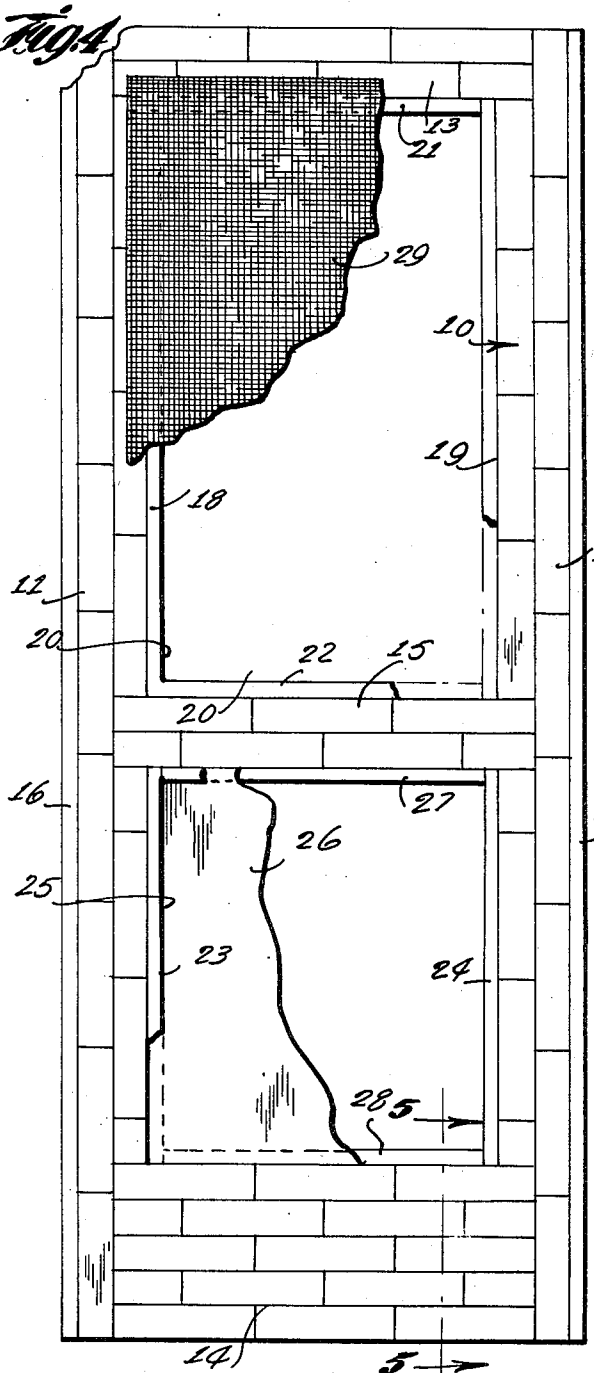


Fig. 6.

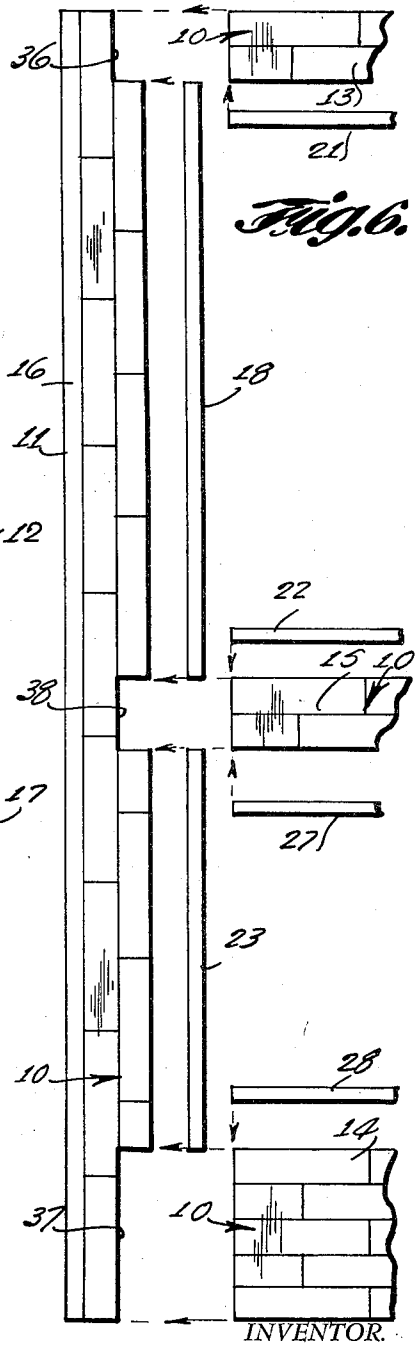
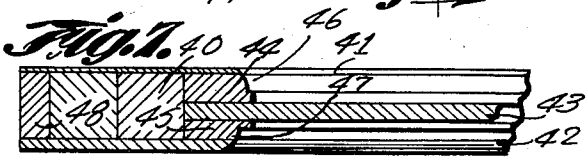


Fig. 7.



INVENTOR.

John W. Haynes

BY Victor J. Evans & Co.

ATTORNEYS

United States Patent Office 2,822,870 Patented Feb. 11, 1958

2,822,870

CORE BLOCK DOOR CONSTRUCTION

John W. Haynes, Susanville, Calif.

Application October 5, 1954, Serial No. 460,327

1 Claim. (Cl. 160—380)

This invention relates to the construction of doors wherein core blocks, such as of wood, are secured by a suitable adhesive between layers of veneer with combinations of wood panels and wire screens positioned between stiles and top, bottom and lock rails, and in particular, an improved door assembly wherein blocks are secured by glue or a suitable adhesive between sheets of veneer with openings for panels and wire mesh between the stiles and top, bottom and lock rails in which the parts are secured in assembled relation without boring holes for dowel pins or without using other fastening elements.

The purpose of this invention is to provide an assembly of core blocks and veneer panels wherein the parts are secured together and panels or layers of wire mesh are secured in openings between the stiles, top, bottom and lock rails without the use of moulding, beads and coves or other finishing or fastening elements.

In the conventional manner of forming a door of this type, the beads and coves are formed in moulding machines and a slot is left for the veneer and, in numerous instances, the veneer is a little undersized whereby the panels made from the veneer are loose. In some instances, the veneer is oversized and, in such cases, the bead is broken. Furthermore, in order to start panels into the grooves, the panels are buffed off on two edges and in such cases the panels are loose.

With this thought in mind, the improved door construction of this invention provides means for assembling panels and wire mesh in the structure of the door so that it is not necessary that the panels be edged or buffed and, should the veneer be a little undersized or oversized, small strips secured to the core blocks between the veneer panels are adapted to take up variations in size making it possible to obtain tight panels.

The object of this invention is, therefore, to provide means for manufacturing a door in which the use of dowel pins, mortise and tenoned joints and miter joints is eliminated.

Another object of the invention is to eliminate, in the construction of a door, the bead and cove assemblies where the stiles, rails and muttins join together.

Another object of the invention is to eliminate the necessity for edging and buffing panels in door structures and thereby obviate loose panels.

A further object is to eliminate the use of moulding to secure wire mesh to screen doors.

A still further object is to provide an improved core block door assembly in which wire mesh layers and panels are rigidly secured in the structure of a door and in which mortise and tenoned joints and dowel pins are eliminated in which the door is of a comparatively simple and economical construction.

With these and other objects and advantages in view, the invention embodies a door including core blocks secured by a suitable adhesive between veneer panels with openings through the structure providing top, bottom and lock rails and with strips adapted to extend along the inner edges of the stiles and upper and lower edges

of the rails for rigidly securing panels and the like in said openings.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings, wherein:

Figure 1 is a front elevational view illustrating a complete door assembly with parts of the veneer on a lower corner of the door broken away to show the core block structure where the lower ends of the stiles are joined to the lower rails.

Figure 2 is a vertical section through the door taken on line 2—2 of Figure 1 with the parts shown on an enlarged scale and with parts broken away.

Figure 3 is a sectional plan through one side of the door taken on line 3—3 of Figure 1 also with the parts shown on an enlarged scale and with parts broken away.

Figure 4 is a view similar to that shown in Figure 1 with the veneer on the near side of the door omitted and with parts broken away.

Figure 5 is a detail showing an exploded view of the door assembly showing the parts at the lower portion of the door with the upper part of the door broken away, said section being taken substantially on line 5—5 of Figure 4.

Figure 6 is an exploded view illustrating the connections of the top, bottom and lock rails to the stiles and also the arrangement of the strips in the panel and screen openings through the doors with parts broken away.

Figure 7 is a detail showing a sectional plan, similar to that shown in Figure 3, showing a panel in the lower part of the door positioned between moulding strips and with parts broken away.

Referring now to the drawings, wherein like reference characters denote corresponding parts, the improved core block door construction of this invention includes a plurality of core blocks **10** positioned to form stiles **11** and **12**, a top rail **13**, a bottom rail **14** and a lock rail **15**, strips **16** and **17** secured to outer edges of the stiles **11** and **12**, strips **18** and **19** secured to the inner edges of the stiles in an opening **20** between the top rail **13** and lock rail **15** with a strip **21** positioned against the inner surface of the top rail and a strip **22** positioned against the inner surface of the lock rail, strips **23** and **24** positioned on the inner surfaces of the stiles in an opening **25** for a panel **26** positioned between the lock rail **15** and bottom rail **14** with strips **27** and **28** on the inner surfaces of the rails **15** and **14**, respectively, a layer of wire mesh **29** positioned between a veneer panel **30** and the core blocks on one side of the door and a veneer panel **31** positioned on the opposite side of the door.

In the improved door construction of this invention, the core blocks **10**, which are in the form of bricks and which are staggered, such as bricks in a wall, are assembled to form the stiles, top, bottom and lock rails of a door, the core blocks being secured together with an adhesive and with the blocks in position the side surfaces are covered with veneer panels or strips which are also secured to the surfaces of the core blocks with a suitable adhesive.

By this means, the edges of the wire mesh **29** are adapted to extend upwardly to the point **32** and downwardly to the point **33** with the edges at the sides or on the stiles extended to points, such as the point **34**, shown in Figure 3 whereby, instead of securing the wire mesh with narrow strips at the edges, comparatively wide portions, such as 1⅛ inch strips extend into the structure of the door whereby the wire mesh is firmly gripped. The inner edges of the stiles and top and lock rails are faced with the strips **18**, **19**, **21** and **22** which extend continuously around the opening **20**, and by this means, a finished portion is provided in the upper part of the door structure.

In the same manner, strips 23, 24, 27 and 28 are positioned against the inner edges of the stiles, lock and bottom rails in the opening 25, and after the panel 26 is in position, complementary strips, as indicated by the numeral 35, are positioned between the panel 26 and veneer 31.

As illustrated in Figure 6, the stiles 11 and 12 are provided with notches 36 and 37 for receiving the top and bottom rails 13 and 14, respectively; and also notches 38 for receiving the ends of the lock rail 15.

In the detail illustrated in Figure 7, core blocks 40 are secured between veneer panels 41 and 42 with a suitable adhesive, and with a panel 43 mounted between strips 44 and 45, the outer edges 46 and 47, respectively, are rounded to provide finish strips, the rounding surfaces blending with the inner edges of the veneer or surfacing panels. In this design, the sides of the stiles are provided with finish strips 48, similar to the strips 16 and 17. It will be understood that the inner edges of the strips around the panels 26 and wire mesh 29 may be provided with arcuate surfaces of different designs as may be desired.

It will also be understood that the relative sizes of the panels and wire mesh elements may be varied to provide different patterns and the number of the panels or openings for the wire mesh may also be varied to compensate for different conditions or styles of architecture.

It will be understood that other modifications, within the scope of the appended claims, may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

A door construction comprising a plurality of core blocks arranged to form stiles, top, bottom and lock rails, said stiles being provided with first notches for receiving portions of said top and bottom rails, said notches

being arranged adjacent the ends of the door, there being a second notch for receiving said lock rail, said second notch being arranged between said first notches, said notches being shaped so that they snugly receive therein the coacting portions of the rails, finishing straps covering outer edges of the stiles, strips secured to the inner edges of said stiles, top, bottom and lock rails, a layer of wire mesh positioned between the stiles and top and lock rails with edges thereof extended over said strips and against the side surfaces of the core blocks, a panel positioned between the stiles and between the lock and bottom rails with edges thereof positioned between said strips on the inner edges of the stiles and lock and bottom rails, and spaced parallel veneer panels positioned to cover the side surfaces of the core blocks and strips and having openings therein positioned to register with openings for the wire mesh and first named panel, said core blocks, strips and veneer panels being secured together by means of an adhesive, said core blocks being of rectangular shape and being arranged in staggered formation, said core blocks being of irregular sizes, the core blocks forming said stiles having their longitudinal axes disposed in vertical relation to each other parallel to the side edges of the door and the core blocks of said top, bottom and lock rails being arranged in horizontal relation and arranged parallel to the top and bottom edges of the door.

References Cited in the file of this patent

UNITED STATES PATENTS

1,540,932	Dodge	June 9, 1925
2,020,044	Tesek	Nov. 5, 1935
2,695,664	Delegard et al.	Nov. 30, 1954