Aug. 20, 1935. A. H. CHRISTENSEN 2,011,796

COMPLETE DETACHED ADJUSTABLE ARCH FRAME

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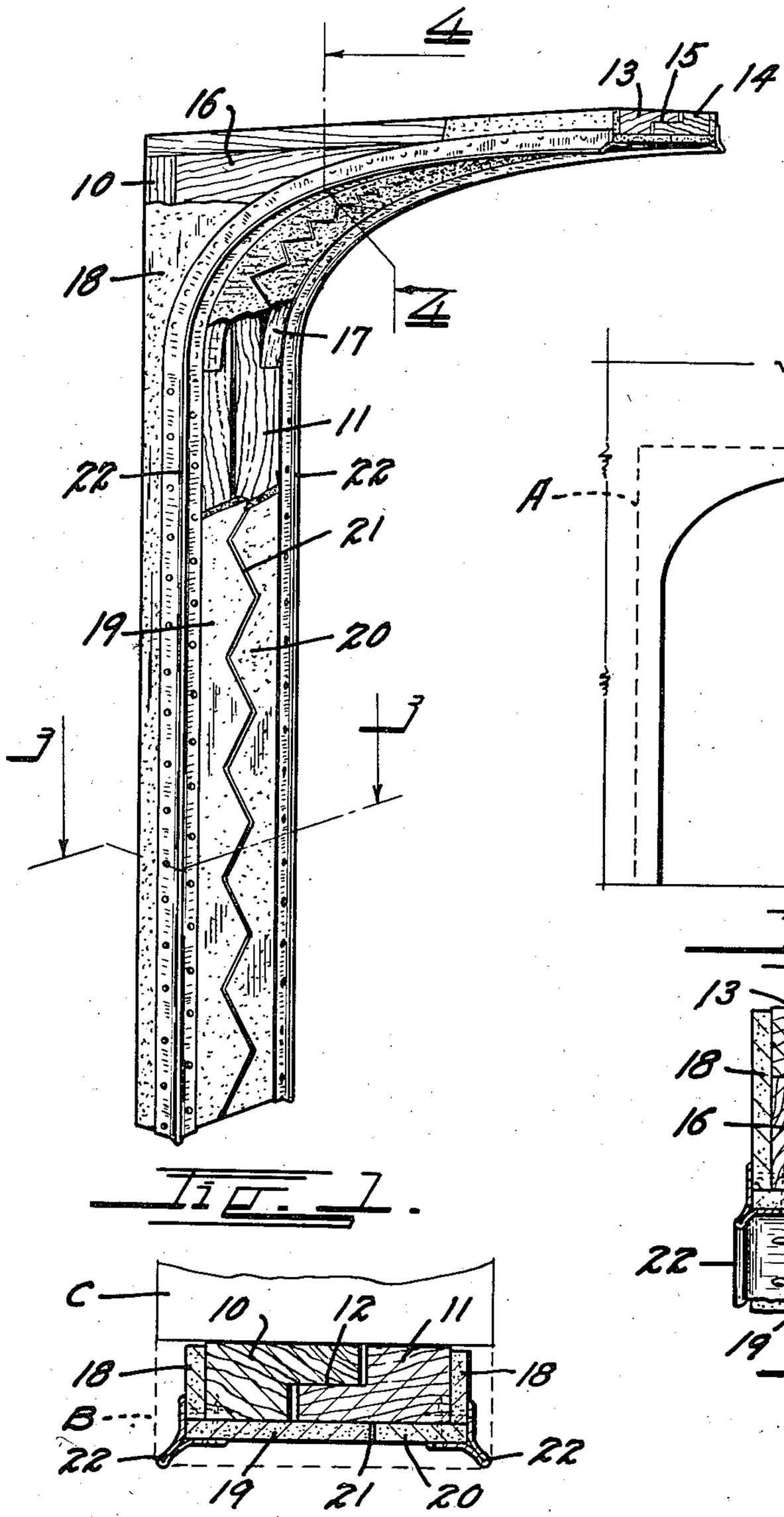

Fig. 1.

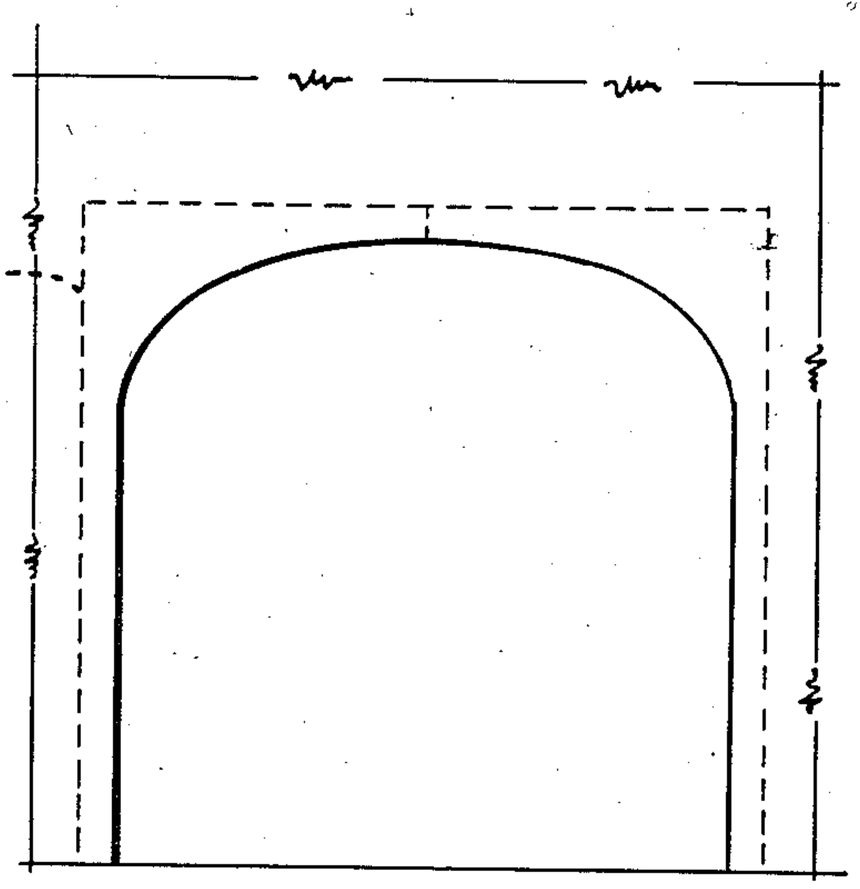

Fig. 2.

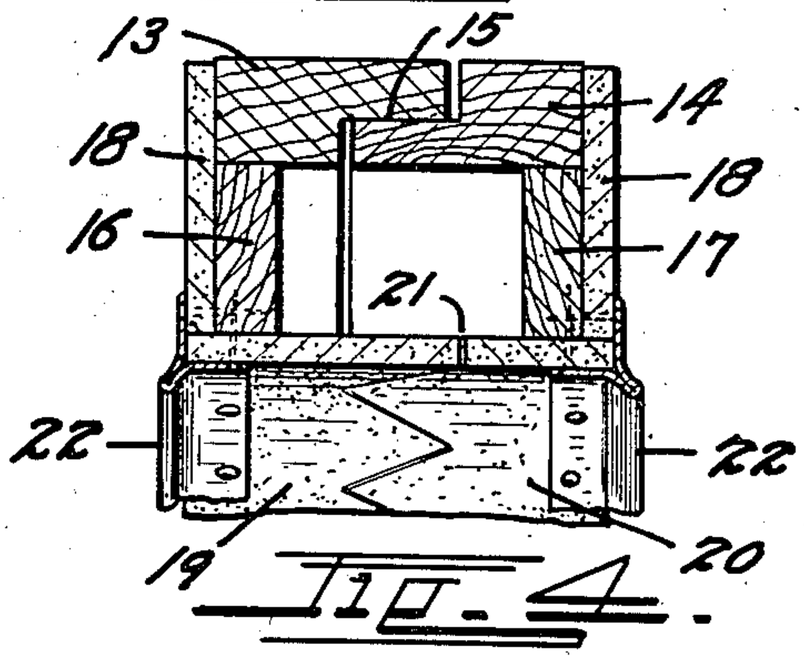

Fig. 4.

Fig. 3.

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COMPLETE DETACHED ADJUSTABLE ARCH FRAME

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3 Claims. (Cl. 72—116)

This invention relates to a standard form for use in transforming square wall openings into plaster arch openings. The forms for plaster arch openings are usually designed and constructed by the carpenter on the job. Since all carpenters are not skilled designers, this usually results in an arch which is not architecturally correct, and in arches throughout the building which are not uniform.

The principal object of this invention is to provide a complete detached adjustable arch frame which can be marketed as a complete unit and which can be quickly set up in a square partition opening and adjusted to suit the desired heighth and width of opening, as well as the desired wall thickness. With the use of this invention, all arched openings in a building will be similar in design so that uniform, architecturally correct arches are obtained in much less time than formerly required.

In remodeling old buildings, it is often desired to change square cased openings and doorways into plaster arches. In order to do this, it is necessary to employ a carpenter to place the arch frames for the decorator to fill in with plaster, putty, etc. The usual decorator is unable to construct a satisfactory arch frame, and the job usually requires a full day's time of a carpenter.

Another object of this invention is to provide a frame unit which can be purchased by the decorator, adjusted to fit any desired opening or wall, and quickly set in place so that he may proceed with his plastering, papering, etc., without requiring the services of a carpenter.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:—

Fig. 1 is a perspective view of the complete arch unit partially broken away to show the interior construction thereof.

Fig. 2 illustrates a wall with a plaster arch opening in which the invention is embodied.

Fig. 3 is a horizontal section, taken on the line 3—3, Fig. 1.

Fig. 4 is a vertical section, taken on the line 4—4, Fig. 1.

The invention contemplates the use of two of the units of Fig. 1 for each archway, each unit supplying one-half of the arch form. Each unit consists of two similar wall sections overlapped on each other so that the complete unit is adjustable as to width. The first wall section consists of a side jamb piece 10 secured at right angles to a head jamb 13. In the rectangular joint an arch block 16 is positioned to define the curve of the desired arch. The wall face of the section is covered by a sheet of wall board 18, such as "Celotex" or the like and the arch face of the jamb pieces 10 and 13 and the arch block 17 are covered by a strip of similar wall board 19 having a serrated or "zig-zag" edge.

The second section of each unit is similar to the first section except reversed. It comprises a side jamb piece 11, a head jamb piece 14 and an arch block 17 covered by strips of wall board 18 and 20. The wall board strip 20 is serrated or "zig-zagged" to fit into the serrations of the strip 19 when the two sections are together to form a broken joint line 21. The two coacting side jamb pieces join along a vertical "ship lap" joint 12 and the two coacting head jamb pieces joint along a horizontal "ship lap" joint 15.

It can be readily seen that with the above construction the two sections of the unit can be slid apart or pushed together to adjust the unit to any desired total thickness. The serrated edges of the wall board strips 19 and 20 and the ship lap joints between the jamb members form a "slip joint" connection between the two sections.

The corners of each unit of the arch are outlined by means of metal corner beads 22 permanently secured over the corners of the wall board strips and extend completely around the arch corners of the unit. The vertical side jambs 10 and 11 are furnished of a length equal to the greatest expected heighth of arch and the head jambs 13 and 14 are furnished to a length equal to ½ the greatest expected width of arch.

Let us assume that it is desired to fit an arch into a square wall opening, as indicated by the broken line "A", Fig. 2. The vertical side jambs 10 and 11 are cut to the heighth of this opening. The head jambs are cut to ½ the width of the opening. The units of the form are then set in place at each side of the opening, and either widened or narrowed, until the extreme width of the corner beads 22 equals the plaster width of the wall (indicated at C, Fig. 3). The side and head jambs are then nailed directly to the wall studding and the arch is ready to receive the plaster or decorating putty, which, when in place, covers the form to the depth of the projection of

the corner beads 22, as indicated by the broken line B in Fig. 3.

It is desired to call particular attention to the broken joining line 21. It has been found that plaster cracks form and follow along a straight line of the undersurface. With the present invention, however, should any cracks start on the arch face, they are soon interrupted by the turns of the broken joint 21. This irregular line also provides a secure key to hold the plaster surface in place.

While a specific form of the improvement has been described and illustrated herein, it is desired to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what is claimed and desired secured by Letters Patent is:—

1. An adjustable arch form for buildings comprising: a pair of vertical jamb members; a pair of head jamb members joining said vertical jamb members to form a rectangular corner; a slip joint between said jamb members so that the total jamb width can be increased or decreased as desired; arch blocks inset at the joining of said side and head jamb members; a facing strip on the arch face of each jamb member, said facing strips joining the facing strip on the other jamb member along an irregular "zig zag" line; and corner beads extending upwardly along the corner of said facing strips around said arch blocks and along said head jamb.

2. Means for forming an archway in a rectangular opening through a wall comprising: side jambs adapted to extend upwardly along each side of said opening; a vertical slip joint in said side jambs to allow them to be adjusted to the thickness of said wall; head jambs extending inwardly from said side jambs along the top of said opening; a similar slip joint between said head jambs to allow them to be adjusted to the thickness of said wall; arch blocks inset into the corners formed by said side and head jambs; and corner beads extending upwardly along said side jambs around said arch blocks and across said head jambs.

3. Means for forming an archway in a rectangular opening through a wall comprising: side jambs adapted to extend upwardly along each side of said opening; a vertical slip joint in said side jambs to allow them to be adjusted to the thickness of said wall; head jambs extending inwardly from said side jambs along the top of said opening; a similar slip joint between said head jambs to allow them to be adjusted to the thickness of said wall; arch blocks inset into the corners formed by said side and head jambs; and corner beads extending upwardly along said side jambs around said arch blocks and across said head jambs; facing strips extending inwardly toward each other from opposite corner beads to form a facing in said archway, each strip passing projecting into the opposite strip at intervals so as to form an irregular joining line to accommodate the width adjustment of said jamb members.

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