May 19, 1959 L. L. LESTER, JR 2,887,219

PREFABRICATED DOOR PACKAGE ASSEMBLY

Filed March 28, 1955

2 Sheets-Sheet 1

FIG. 1.

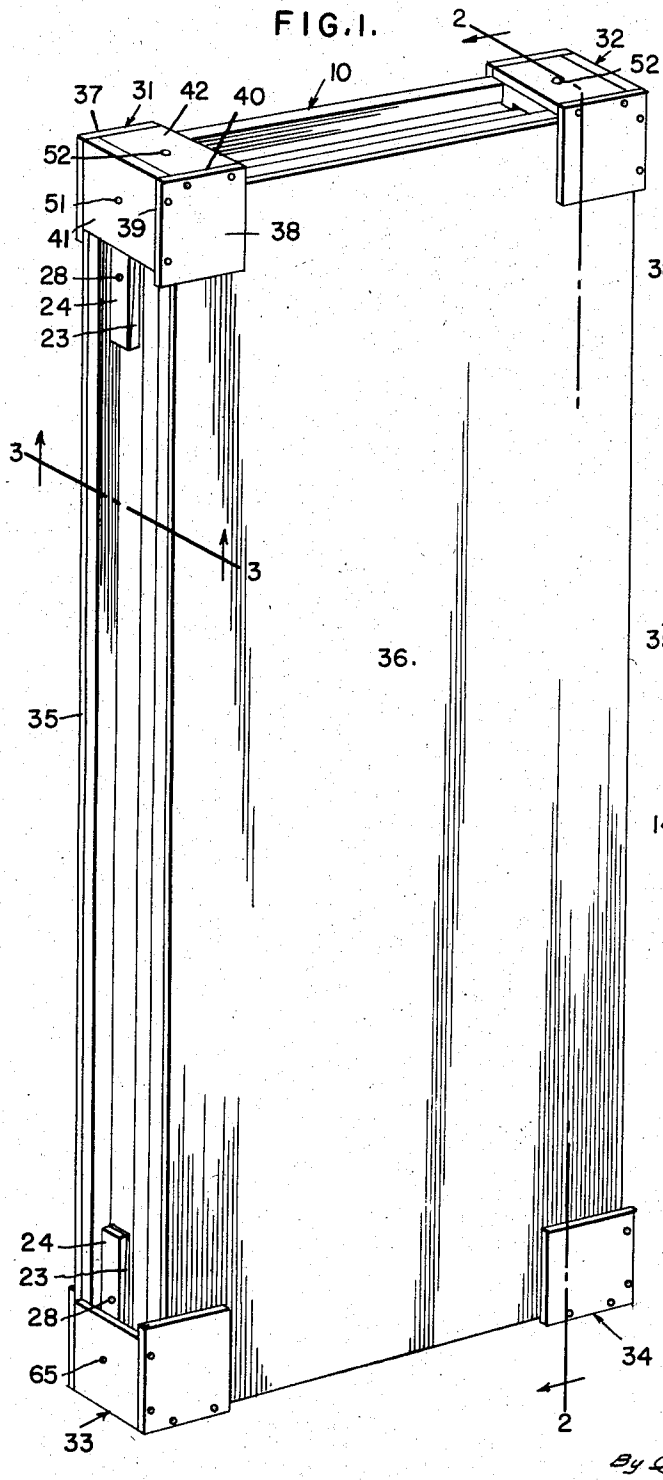
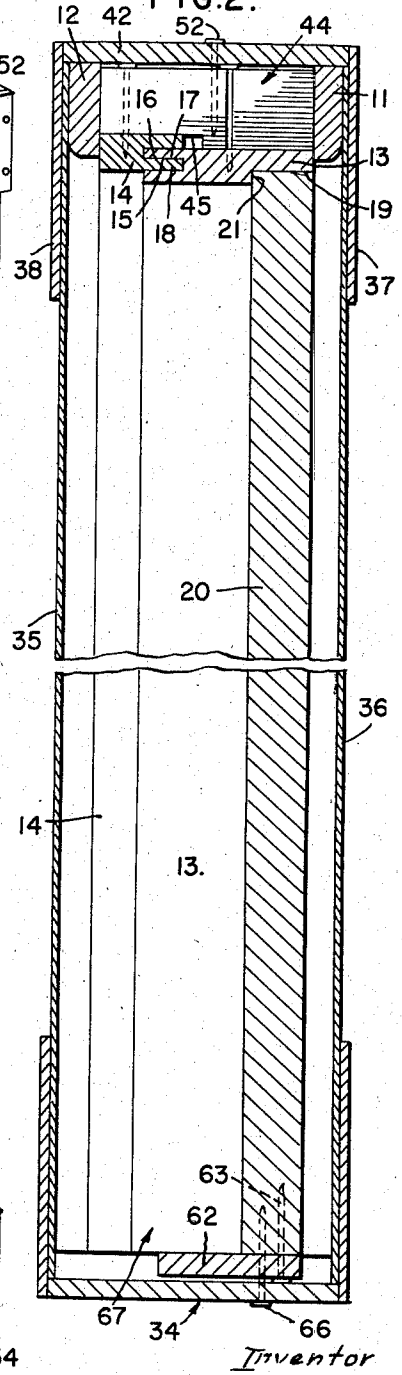


FIG. 2.



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FIG.4.

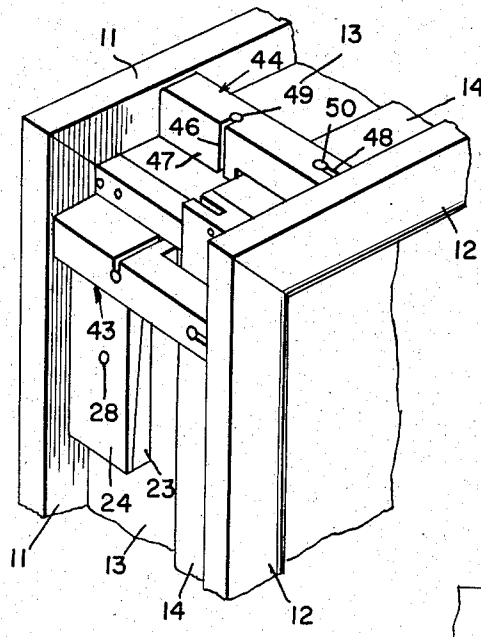


FIG.3.

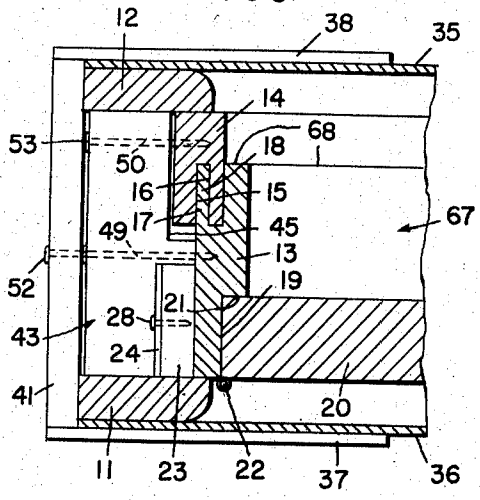


FIG.6.

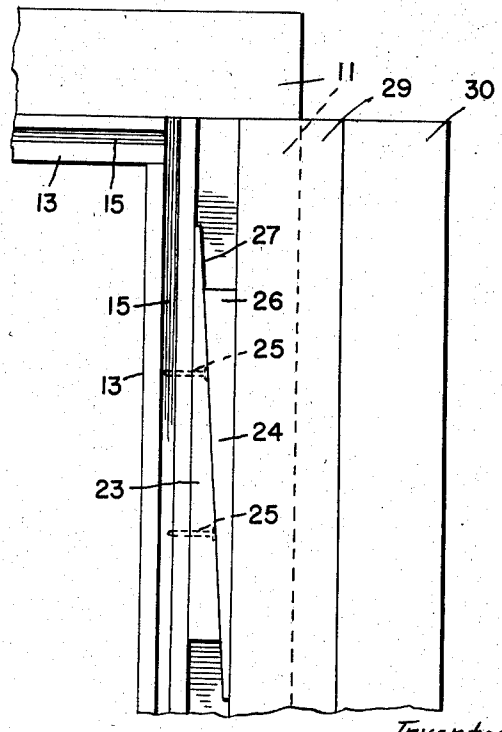
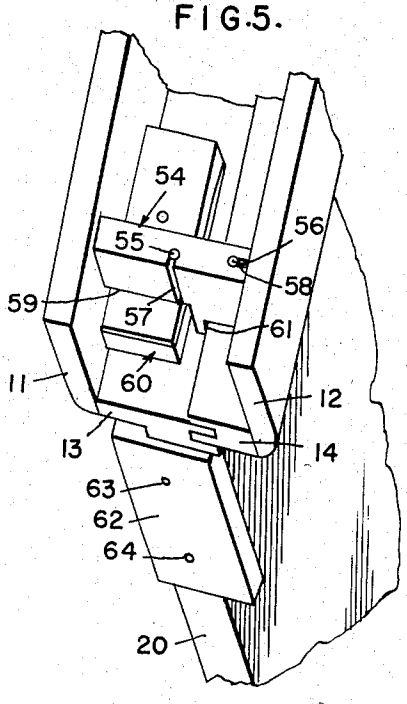


FIG.5.



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PREFABRICATED DOOR PACKAGE ASSEMBLY

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Application March 28, 1955, Serial No. 497,189

8 Claims. (Cl. 206—60)

This invention relates generally to preformed door and frame constructions and to the manner of packaging the same.

Of primary importance in connection with this invention is the provision of improved means for packaging preformed door and frame constructions and generally of means calculated to simplify the process of packaging such articles for shipment.

An object of this invention is to provide an improved combination of corner packing means and securing blocks which cooperate to enable the corner packing means to be separately applied.

Another object of this invention is to provide a combination of securing blocks and corner packing means in which the corner packing means are affixed to the securing blocks to hold a preformed door and frame construction in proper relationship for shipping.

Still another object of this invention is to provide a specially formed securing block for use in conjunction with corner securing means, wherein the blocks are provided with grooves or notches to receive fasteners which will at once prevent movement of two parts in one direction but will permit their ready disengagement in another direction and to provide corner securing means operable in conjunction with the securing blocks to preclude the disengagement of parts until such time as the corner means themselves are removed.

Still another object of this invention resides in the provision of reinforcing wedge means for the door and frame construction to rigidify the same both during the shipping process and after installation of the preformed construction.

These and other objects inherent in the invention hereinafter described will become apparent as the description proceeds.

Illustrative embodiments of the invention are shown in the accompanying drawings but it is to be understood that this showing is illustrative only and is not intended to be limiting to the exact construction shown since obviously changes can be made both in detailed construction and arrangement of parts without forming a departure from the spirit and scope of this invention as set forth and defined in the appended claims.

In the drawings:

Fig. 1 is a perspective view of the package unit;

Fig. 2 is an enlarged vertical section taken generally along line 2—2 in Fig. 1;

Fig. 3 is an enlarged horizontal section taken along line 3—3 in Fig. 1;

Fig. 4 is an enlarged perspective view of one of the upper corners of the package unit with the corner boot removed;

Fig. 5 is an enlarged perspective of one of the lower corners of the package unit with the corner boot removed; and

Fig. 6 is an elevational view showing a portion of the prefabricated door assembly being assembled into a door opening and illustrating the manner of using the wedges.

Referring now more particularly to the drawings, the reference numeral **10** indicates the package unit generally which includes the preformed door and frame assembly as well as the elements cooperable therewith and affixed with particular relation thereto to form the package adapted for shipping the door assembly.

The door and frame assembly itself consists of two side frame members which are interconnected at their upper ends by a header, effecting a generally inverted U-shaped configuration with the door proper being hingedly secured to one of the side frame members and cooperable with the latch and lock mechanism on the other side frame member in a conventional and well understood manner. As will be seen most clearly in Figs. 2 and 3, the side frame members and the header each consist of a pair of spaced molding strips which will be designated the inner molding strip **11** and the outer molding strip **12**, it being understood that these molding strips may take any desired ornamental configuration. Rigidly affixed by any suitable means to the inner and outer molding strips **11** and **12** are the inner and outer jamb sections **13** and **14**. These jamb sections extend at right angles to the molding strips adjacent to one longitudinal edge thereof such as to afford an L-shaped cross-sectional construction and during normal engagement of parts, the cross-sectional configuration of the side pieces and the header is channel like as shown. The inner or free longitudinal edges of the jamb sections **13** and **14** are provided with notches or grooves **15** and **16** which extend longitudinally thereof which are of such dimension as to be substantially the same width as the tongue portions **17** and **18** which are formed by the notches so that when the parts are interengaged in a manner indicated in Figs. 2 and 3, the tougue portions **17** and **18** will frictionally engage within the corresponding notches to effect a telescoping, overlapping interengagement between the inner and outer molding strips **13** and **14**.

The inner jamb strip **13** of both side frame members and the header is provided with a longitudinal cut-away portion or notch **19** which extends to and opens upon the inner edges of these jamb strips for the purpose of receiving the door structure **20** therein and form a peripheral stop surface **21** for the door in a manner well understood. The door is provided with suitable hinges **22** connecting it to the inner jamb strip **13** in the manner illustrated.

The above described construction is not in itself intended to form the subject matter of this invention, the invention residing in certain constructions and arrangement of parts cooperable therewith to be utilized for the purpose of shipping the preformed door and frame structure such that it may arrive at its destination in a wholesome and intact state devoid of damage such as chipping, marring, scratching or the like.

For the purpose of rigidifying the side frame members during shipment and for rigidifying them during and after installation of the preformed door assembly and also for the purpose of properly positioning the preformed assembly in a door opening, inner and outer wedge members **23** and **24** respectively are provided. As shown most clearly in Figs. 4 and 6, the inner wedge **23** is rigidly and securely fastened to the outer surface of the inner jamb member **13** by means of fastening elements such as nails **25** or the like. The outer wedge **24** overlies the inner wedge with its wide end **26** coterminus with the thin end **27** of the inner wedge such that the two together initially form a rectangular block. A single fastening element such as the nail **28** is driven through the outer wedge **24** and into the inner wedge **23** to hold the outer wedge in place during shipment and before installation. In this respect, it will be noted that as shown most clearly in Fig. 3, the head of the fastener **28** is preferably left

in such a manner that it is spaced somewhat from the outer surface of the wedge **24** so that it may be easily removed by claw hammer or the like. The purpose of the fastener **28** is solely to hold the outer wedge **24** in place prior to installation of the preformed assembly. In installing the preformed assembly, the longitudinally separable portions of the door frame are parted and the inner section including the molding **11** and the jamb section **15** together with the door **20** are placed in approximately the desired position within the door opening defined in part by the vertical studs indicated by the reference characters **29** and **30**. Of course, prior to the installation of this portion of the unit, the outer wedges **24** have been removed from the inner wedges. When the door and frame portion is in approximately the correct position, the outer wedges **24** are inserted in place in the manner shown in Fig. 6 and may be driven downwardly in respect to the inner wedges to tightly wedge the preformed portion between the vertical studding **29** and **30** and similar but opposite studding not shown which is cooperable with the other side of the unit. Thus, the wedge construction is not only desirable in connection with the packaged unit wherein it rigidifies and strengthens the side frame members but also it serves the purpose of properly positioning the door frame and door assembly and wedging the same in place when the unit is installed.

As will be evident from Fig. 1, the packaged unit includes the previously described door and frame assembly provided at each corner thereof with the boot members **31**, **32**, **33** and **34**, a second mechanism for holding the door frame sections together against separation and to serve as a base to which the corner boot members are secured, and the front and back protective sheets **35** and **36**. Each of the corner boots includes a pair of spaced side wall pieces **37** and **38** which have at least two intersecting right angular edge portions **39** and **40** and corner pieces **41** and **42** joining the wall pieces along these intersecting edges in the manner shown most clearly in Fig. 1 with reference to the corner boot **31**.

As is to be seen most clearly in Figs. 2 and 4, a pair of securing block members **43** and **44** are associated with each of the upper corners of the door and frame construction, the securing blocks being of such length as to extend between and abut the molding strips **11** and **12** when the tongue and groove connections of the jamb sections **13** and **14** are fully engaged. The lower surface of each block is cut-away as indicated by the reference character **45** for substantially half its length to provide clearance for the stepped relation between the jamb sections **13** and **14**. Additionally, the vertical notch **46** is provided in the side face **47** of each block and the depth of this notch, although not critical, preferably extends to about half the thickness of the securing blocks. Further, there is another vertical notch **48** provided in each securing block in one end face thereof such as to extend longitudinally of the block. Fasteners **49** and **50** extend through the respective notches **46** and **48** and into the respective jamb sections **13** and **14** serving to rigidly retain the securing blocks in place when the boots **31** and **32** are placed in enveloping relation over the upper corners of the door and frame construction. To then maintain the corner boots in position, fasteners **51** and **52** are driven through the corner pieces **41** and **42** thereof into the securing blocks **43** and **44**. Thus, a rigid, protective assemblage is provided for the upper corners of the door and frame construction. It is to be noted that the height of each securing block is such as to space the upper face **51** thereof somewhat below the outer edge of the inner and outer molding strips, thus permitting the securing block fasteners **49** and **50** to be driven to such as extent that their heads **52** and **53** are not crushed into the body of the block but lie outwardly thereof between the blocks and overlying corner pieces **41** and **42**. This in turn permits ready removal of the blocks after the corner boots are removed. Also, and more important, it permits

the fasteners **50** to slide freely within the groove **48** so that once the corner boots have been removed, the jamb section **14** and its associated parts may be withdrawn and disengaged from the jam section **13**. Thereafter, removal of the fasteners **50** will be relatively simple since they project a very substantial distance above the surface of the jamb section **14**. Also, the securing blocks will then present a free end portion projecting beyond the jamb section **13** so that light hammer blows on this free end will easily pull out the fasteners **49** and free the securing blocks.

The situation relative to the lower corner boots is similar in some respects to the upper corner boots in that securing blocks **54** are associated with the lower portions of the side frame members. These blocks are fastened to the inner and outer jamb sections by means of fasteners **55** and **56** which project through the vertical notches **57** and **58** of blocks **54**, similarly to the manner in which the previously described securing blocks are fastened. If it is desired, the blocks **54** may be provided with notches **59** on their undersurfaces to clear an associated wedge assembly **60** disposed therebeneath and fastened to the inner jamb section in the manner previously described. Of course, the blocks **54** include lower surface notches **61** to clear the step formed between the two jamb sections.

Secured to the lower edge of the door adjacent each corner of the door and frame construction is a spacer block **62**, securement being occasioned for example by a pair of fasteners **63** and **64**. Since the width of the spacer blocks **62** is such as to extend between the side walls of the boots **33** and **34**, they project a substantial distance beyond one side of the door **20** so that when the corner boots **33** and **34** are removed, the spacer blocks are also easily removed by merely hitting them with a hammer or similar object. Fasteners **65** and **66** are driven through the corner pieces of the boots **33** and **34**, into the securing blocks **54** and spacer blocks **62** respectively, firmly securing these boots in place for shipping.

Thus it will be apparent that a simple and readily packaged unit is effected by the construction described. It is to be noted that the protective sheets **35** and **36** are preferably of substantially the same area as the door and frame construction so that when the corner boots are in place thereover, the sheets are effectively held in place. The sheets may be made of cardboard, plywood or any desired material and in addition to the protective feature, they additionally serve to present a compartment **67**, with door **20**, within which the door hardware such as lock and knob assembly may be placed.

This is particularly useful in constructions of the same general type as shown inasmuch as the door **20** is offset to one side and cannot therefore carry the usual knob assembly without interfering with the protective sheet **36**.

The invention above described can also be applied in window constructions wherein a window frame may be positioned in like manner to the door **20** and arranged for sliding movement, swinging movement or otherwise, as desired. In this case it is desirable to provide means for associating a screen panel with the window and for this purpose longitudinally extending strips may be applied at the top and bottom of the outer jamb or frame section **14** in slightly spaced relation to the edge **68** of the inner jamb section **13** so as to define therewith slots or grooves which will receive upper and lower marginal edge portions of the screen frame. The strip at the top of the screen would be of greater thickness than that at the bottom so as to provide a deeper groove at the top such that the screen panel may be easily removed by first inserting the upper marginal portion thereof into the relatively deep groove and then placing the lower edge in vertical registry above the lower groove, whereafter when the screen panel is released and allowed to drop into the lower groove, it will be projected slightly

into both the upper and lower grooves to thus hold the screen firmly in place.

It will be appreciated that the window unit when constructed may be formed such that the longest dimension is upright or, if desired, the longest dimension can be horizontal. In either case, the strips for holding the screen panel in place are positioned so as to be in upper and lower relationship and they are preferably spaced from the edge **68** as shown in Fig. 3, a distance slightly greater than the width of the screen panel.

I claim:

1. A packaging assembly for preformed door and frame constructions including side frame members joined by a header with a door hingedly secured to one of the side frame members, the side frame members and header being longitudinally separable, the side frame members and header including molding strips joined by jamb sections to provide a channel-like cross section, said assembly comprising corner packing means for each of the corners of the construction to be packaged, said means including spaced side wall pieces joined along adjacent, right angularly disposed edges by corner wall pieces, securing blocks fastened to the jamb sections adjacent each corner of the preformed door and frame construction, said securing blocks being notched in a direction toward one of the molding strips, with the means fastening the blocks to one of the jamb sections being disposed within the notch in each block, said corner wall pieces being secured to said securing blocks.

2. A packaging assembly for preformed door and frame constructions including side frame members joined by a header with a door hingedly secured to one of the side frame members, the side frame members and header being longitudinally separable, the side frame members and header including molding strips joined by jamb sections to provide a channel-like cross section, said assembly comprising corner packing means for each of the corners of the construction to be packaged, said means including spaced side wall pieces joined along adjacent, right angularly disposed edges by corner wall pieces, securing blocks fastened to the jamb sections adjacent each corner of the preformed door and frame construction, said securing blocks being notched in a direction toward one of the molding strips, with the means fastening the blocks to one of the jamb sections being disposed within the notch in each block, fasteners projecting through said corner wall pieces into said securing blocks whereby to fix the corner packing means to the door and frame construction in enveloping and protecting relation to the corners thereof.

3. A packaging assembly for preformed door and frame constructions including side frame members interconnected by a header with a door hingedly secured to one of said side frame members, the side frame members and header being longitudinally separable and each including spaced molding strips connected by telescopically joined jamb sections to provide a channel-like cross section, the packaging assembly comprising means embracing the corners of the door and frame construction, said means including spaced side wall pieces having a pair of intersecting right angular edges and corner pieces interconnecting the side wall pieces along said intersecting edges, and securing blocks fastened on the jamb sections and extending between the molding strips, said securing blocks being notched in a direction toward one of the molding strips, with the means fastening the blocks to one of the jamb sections being disposed within the notch in each block, said corner pieces being secured to the securing blocks.

4. A packaging assembly for preformed door and frame constructions including side frame members interconnected by a header with a door hingedly secured to one of said side frame members, the side frame members and header being longitudinally separable and each including spaced molding strips connected by telescopically joined jamb sections to provide a channel-like cross section, the packaging assembly comprising means embracing the corners of the door and frame construction, said means including spaced side wall pieces having a pair of intersecting right angular edges and corner pieces interconnecting the side wall pieces along said intersecting edges, and securing blocks fastened on the jamb sections and extending between the molding strips, said securing blocks being notched in a direction toward one of the molding strips, with the means fastening the blocks to one of the jamb sections being disposed within the notch in each block, fasteners projecting through said corner wall pieces into said securing blocks whereby to fix the corner packing means to the door and frame construction in enveloping and protecting relation to the corners thereof.

5. A packaging assembly for preformed door and frame constructions including side frame members interconnected by a header with a door hingedly secured to one of said side frame members, the side frame members and header being longitudinally separable and each including spaced molding strips connected by telescopically joined jamb sections to provide a channel-like cross section, the packaging assembly comprising means embracing the corners of the door and frame construction, said means including spaced side wall pieces having a pair of intersecting right angular edges and corner pieces interconnecting the side wall pieces along said intersecting edges, and securing blocks fastened on the jamb sections and extending between the molding strips, said securing blocks being notched in a direction toward one of the molding strips, with the means fastening the blocks to one of the jamb sections being disposed within the notch in each block, said corner embracing means being secured to said securing blocks.

6. A packaging assembly for preformed door and frame constructions including side frame members joined by a header with a door hingedly secured to one of the side frame members, the side frame members and header being longitudinally separable, the side frame members and header including molding strips joined by jamb sections to provide a channel-like cross section, said assembly comprising corner packing means for each of the corners of the construction to be packaged, said means including spaced side wall pieces joined along adjacent, right angularly disposed edges by corner wall pieces, securing blocks fastened to the jamb sections adjacent each corner of the preformed door and frame construction, said securing blocks being notched in a direction toward one of the molding strips, with the means fastening the blocks to one of the jamb sections being disposed within the notch in each block, said corner wall pieces being secured to said securing blocks, and a sheet of protective material disposed on each side of said door and frame construction, each sheet being of substantially the same area as the door and frame construction and having its corner portions disposed between one side piece of a corresponding corner packing means and an adjacent molding strip.

7. A packaging assembly for preformed door and frame constructions including side frame members joined by a header with a door hingedly secured to one of the side frame members, the side frame members and header being longitudinally separable, the side frame members and header including molding strips joined by jamb sections to provide an outwardly facing channel, said assembly comprising corner packing means for each of the corners of the construction to be packaged, said means including spaced side wall pieces joined along adjacent, right angularly disposed edges by corner wall pieces with said side wall pieces disposed closely adjacent the outer sides of opposite molding strips, securing blocks fastened to the jamb sections within said channel and adjacent said corners of the preformed door and frame construction and extending between the opposed faces of the

molding strips such that said molding strips are sandwiched between the side wall pieces and the securing blocks, said securing blocks being notched in a direction toward one of the molding strips, with the means fastening the blocks to one of the jamb sections being disposed within the notch in each block, said securing blocks underlying corresponding corner wall pieces and said corner wall pieces being fastened to said securing blocks.

8. A packaging assembly for preformed door and frame constructions including side frame members joined by a header with a door hingedly secured to one of the side frame members, the side frame members and header being longitudinally separable, the side frame members and header including molding strips joined by jamb sections to provide a channel-like cross section, said assembly comprising corner packing means for each of the corners of the construction to be packaged, said means including spaced side wall pieces joined along adjacent, right angularly disposed edges by corner wall pieces,

securing blocks adjacent the upper corners of said frame extending between the molding strips, each of said securing blocks having a vertical notch in one side face thereof and a vertical notch in one end face thereof, fasteners extending through each of said notches and into the adjacent jamb sections for rigidly retaining the securing blocks in place, said corner wall pieces being secured to said securing blocks.

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