Aug. 17, 1965 J. H. PARKER 3,200,447

PACKAGED DOOR ASSEMBLY

Filed Aug. 24, 1962 2 Sheets-Sheet 1

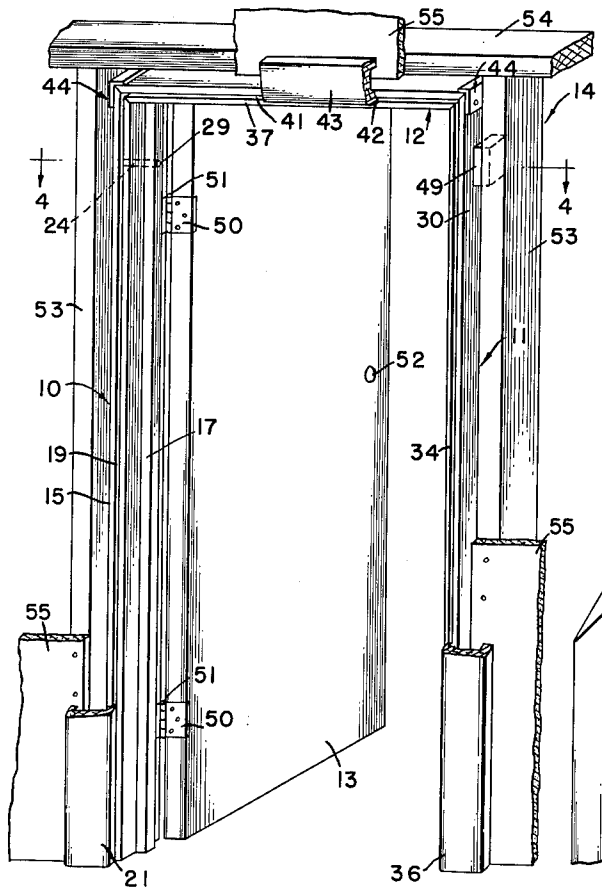


FIG. 1.

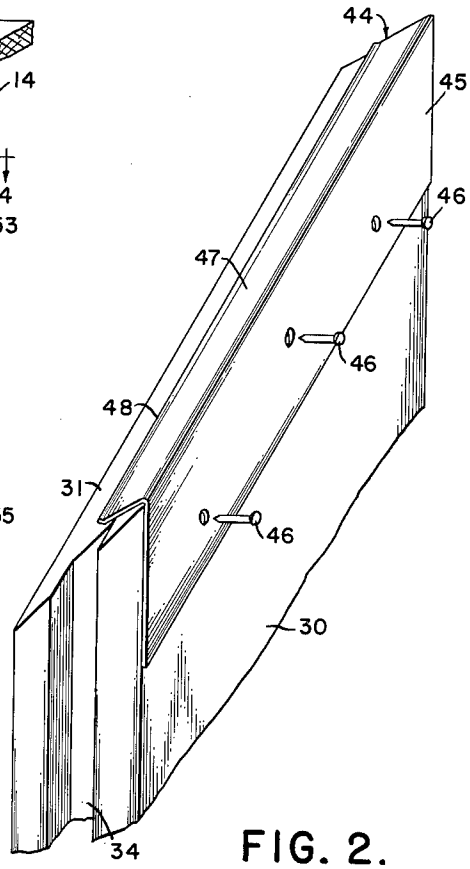
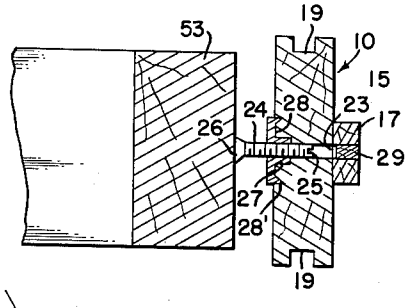


FIG. 2.



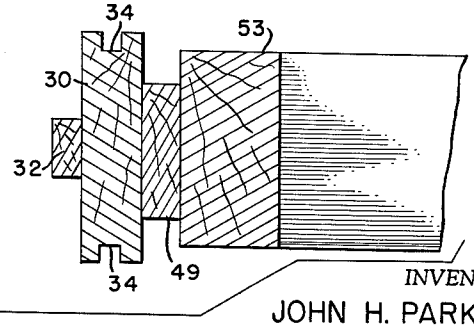


FIG. 3.

INVENTOR
JOHN H. PARKER

BY Garvey & Garvey
ATTORNEYS

Aug. 17, 1965 J. H. PARKER 3,200,447

PACKAGED DOOR ASSEMBLY

Filed Aug. 24, 1962 2 Sheets-Sheet 2

FIG. 4.

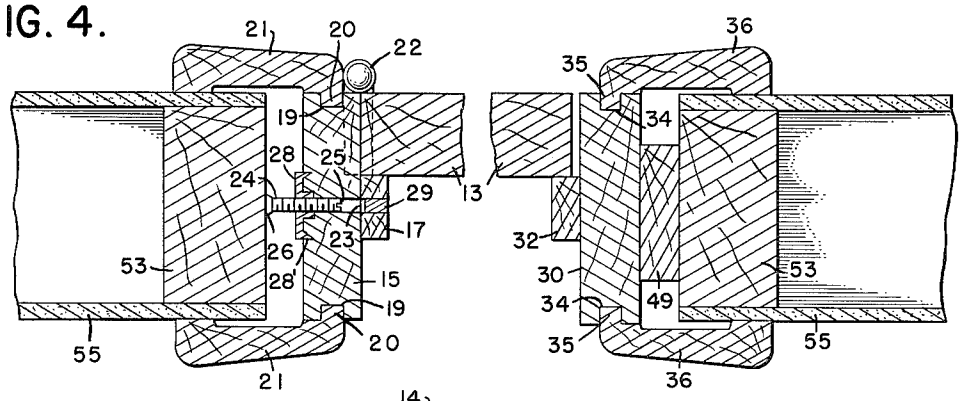
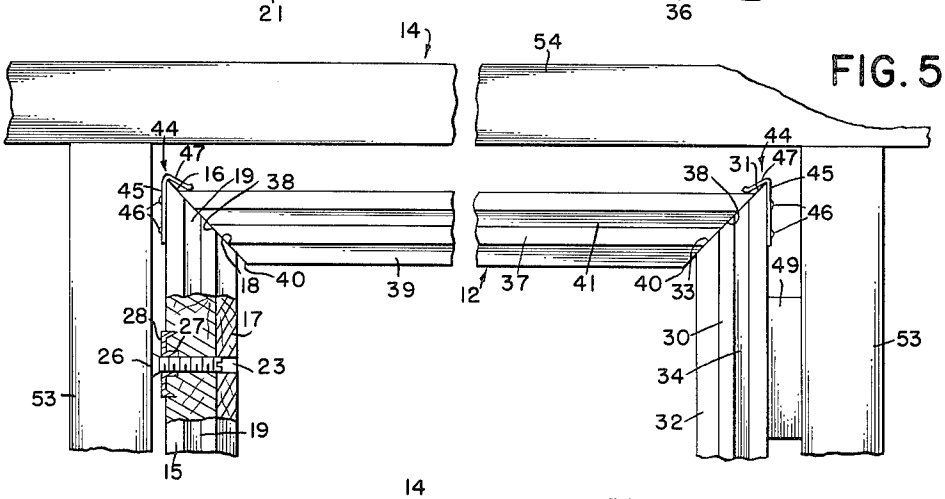


FIG. 5.



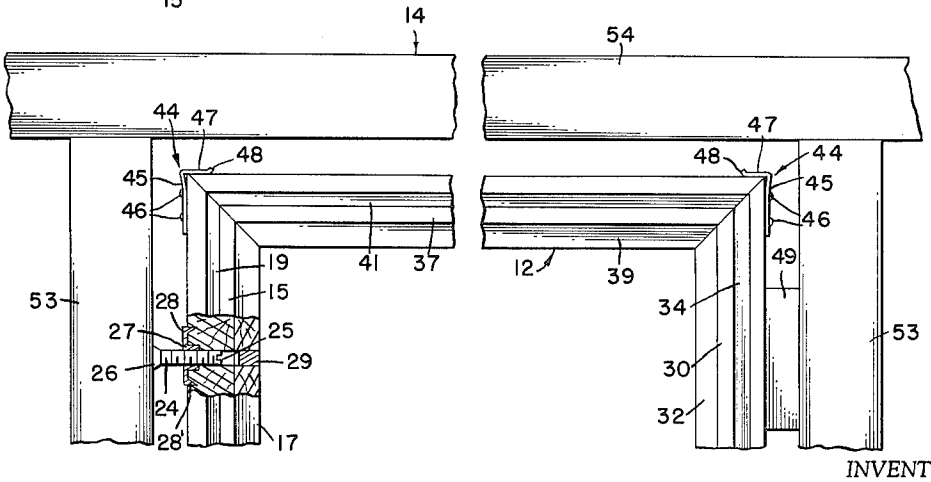


FIG. 6.

INVENTOR
JOHN H. PARKER

BY Garvey & Garvey
ATTORNEYS

United States Patent Office 3,200,447 Patented Aug. 17, 1965

3,200,447

PACKAGED DOOR ASSEMBLY

John H. Parker, Phoenix, Ariz., assignor to National Brass Company, Grand Rapids, Mich., a corporation of Michigan

Filed Aug. 24, 1962, Ser. No. 219,337
1 Claim. (Cl. 20—11)

This invention relates to a packaged door assembly, and is a continuation-in-part of application Serial Number 771,658 filed November 3, 1958 and now Patent No. 3,060,522.

The packaged door assembly forming the subject matter of application, Serial Number 771,658 comprises a prefabricated unit including a completely constructed strike jamb, a hinge jamb, a header and a door, readily erected and positioned by means of a plurality of adjustment members in the component parts. That invention considerably facilitates erection of a door assembly, even by one unskilled in the art. It has been found, however, that with a packaged door assembly constructed in accordance with the present invention, erection may be further facilitated.

It is therefore an object of this invention to provide a packaged assembly for installing a complete shop-hung door which requires no shimming, and in which positioning of the component parts is effected by a single adjustment member.

Other objects are to provide a packaged door assembly including jambs and a header, the abutting ends of which are mitered, the miters being matched by a single adjustment member; to provide a packaged door assembly wherein flexible clips are provided at the locus of the miter joints, to exert pressure on the header during operation of the adjustment member, to insure simultaneous matching of the miter joints; to provide a packaged door assembly wherein a shimming block is secured to the rear face of one of said jambs, which block is engageable with the rough door frame to fix said jamb during positioning of the other jamb by the adjustment member; and to provide a packaged door assembly which may be erected in approximately ten minutes' time by a single, unskilled person.

Other objects of the invention will be manifest from the following description of the present preferred form of the invention, taken in connection with the accompanying drawings, wherein:

FIG. 1 is a plan view of a door assembly erected in accordance with the present invention, portions thereof being removed to disclose details of construction;

FIG. 2 is an enlarged fragmentary perspective view of a jamb frame constructed in accordance with the present invention;

FIG. 3 is a transverse sectional view, taken through the door jambs, the jamb casings and door being removed;

FIG. 4 is a sectional view taken on the lines 4—4 of FIG. 1, looking in the direction of the arrows;

FIG. 5 is a fragmentary plan view of the packaged door assembly of the present invention, showing the header prior to positioning, a portion thereof being broken away to disclose details; and

FIG. 6 is a view similar to FIG. 5, showing the header installed.

Referring now in greater detail to the drawings, there is shown in FIG. 1, a packaged door assembly which includes jamb units comprising a hinge jamb 10 and a strike jamb 11, the assembly further including a header 12, and a door 13, which assembly is adapted to be installed in a rough door frame 14.

Hinge jamb 10 includes a frame member 15, the upper terminal of which is mitered at 16. A door stop 17, the upper edge of which is mitered at 18, is longitudinally and centrally fixed to the front face of frame member 15. As shown in FIGS. 3 and 4, frame member 15 is provided with longitudinal grooves 19, which are adapted to receive tongues 20 of casings 21. Tongues 20 may be secured in grooves 19 by glue or any other suitable means. The upper edges of casings 21 are mitered in the same fashion as frames 15 and door stop 17, so that all lie in the same plane. Conventional butt hinges are indicated at 22.

Near the upper terminal of frame member 15, there is provided an opening 23 extending through stop 17 and frame 15, which is adapted for the reception of a threaded pressure screw 24. The outer shank terminals of threaded pressure screw 24 is provided with a kerf 25 for adjusting the position thereof and the inner terminal issues into an enlarged head 26. Screw 24 is adapted to be threaded through an internally threaded T nut 27 positioned in opening 23, near the inner terminal thereof. Adjacent the opening, the T nut issues into an annular flange 28, portions of the peripheral limit of which are struck inwardly to provide barbs 28'. A plug 29 is positioned in that portion of opening 23 extending through stop 17.

Strike jamb 11 is of similar construction to hinge jamb 10 and includes a frame member 30, the upper edge of which is mitered, at 31. A door stop 32 extends centrally and longitudinally of frame members 30, the upper edge of which door stop is also mitered, as indicated at 33. The sides of frame 30 are provided with longitudinal grooves 34, adapted to receive tongues 35, of casings 36.

Header 12 includes a frame member 37, the lateral edges of which are mitered at 38 to complement the mitered edges of jambs 10 and 11. A door stop 39 extends centrally and longitudinally of the header, the lateral margins of which are also mitered, at 40. The sides of frame member 37 are provided with longitudinal grooves 41, adapted to receive tongues 42 of casings 43.

In accordance with the present invention, there are provided a pair of miter clips 44 adapted for engagement with the upper terminals of each of the jambs. As shown in FIG. 2, each miter clip is substantially coextensive with the width of the frame member of the jamb, and includes a body portion 45, which lies in flush engagement with the rear face of the jamb and is secured thereto by suitable means 46. The upper portion of miter clip 44, extending beyond the upper limit of the jamb frame, is bent downwardly to provide a resilient portion 47 which terminates in a slight reverse curve 48, which resilient portion of the clip is adapted for engagement with the rear face of header frame member 37.

It is further within the contemplation of the present invention to provide a shimming block 49 which is preferably permanently secured to the rear face of frame member 30 of strike jamb 11 at a point near the upper terminal thereof, the function of which will be hereinafter more fully set out.

Door 13 may be of any suitable construction and includes butt hinges 50 adapted to be engaged with the butt hinges 22 of hinge jamb 10 by means of pintles 51. A conventional door knob opening is indicated at 52, which is adapted to receive a door knob and lock unit which may form a part of the packaged assembly.

The assembly of the present invention is adapted for installation in a rough door frame 14, which generally includes vertical trimmers 53 and a horizontal trimmer 54, to which wallboard or the like 55 is secured.

The component parts of the present assembly are assembled by first slipping hinge jamb 10 into vertical position in the door opening, so that casings 21 are disposed on opposite sides of trimmer 53. Header 12 is then placed in position so that casings 43 are on opposite sides of trimmer 54. Strike jamb 11 is next slipped into posi-

tion in the same manner as hinge jamb **10**. At this time the assembly is in the position shown in FIG. 5, with the header spanning the upper ends of the jamb units. Also, shimming block **49** is in contiguous engagement with one trimmer **53** and head **26** of pressure screw **24** abuts the other trimmer. Additionally, the reversely curved terminal of resilient portion **47** of each miter clip **44** is engaged with the rear face of header frame **37** and serves as yieldable restraining means resisting upward movement of the header. The miters of jambs **10** and **11** and header **12** are not aligned at this time.

Alignment of the miters is effected by threading pressure screw **24** through T nut **27** which, by virtue of the engagement of head **26** of the screw and trimmer **53**, and the fixed position of the T nut on frame member, moves jamb **10** towards jamb **11**. The movement of the mitered edge of jamb **10** against the mitered edge of header **12** produces an upward and lateral force on the header, moving it laterally against the mitered edge of jamb **11**. The upward force overcomes the restraining force of miter clips **44**, thereby effecting upward movement of the header. The movement is continued until the proximate mitered edges of the jambs and header are matched. The upward force is equally distributed by the miter clips along the length of the header and across the width thereof. Consequently, header **12** moves upwardly in a horizontal plane, until the miters are membered, as shown in FIG. 6. At this time, resilient portion **46** of each miter clip extends at approximately a right angle to body portion **45**. Plug **29** may then be inserted in the outer portion of the pressure screw opening.

Door **13** is next hung on hinge jamb **10**, by placing pintles **51** through butt hinges **22** and **50** in a well known manner. The door is then closed and, if necessary, the the lower extremities of hinge jamb **10** and strike jamb **11** are adjusted to permit proper operation of the door. The door assembly may then be tightly secured in place by driving nails or other means through casings **21**, **36** and **43** into wallboard **55** and trimmers **53** and **54**.

With the apparatus of the present invention, a complete shop hung wooden door assembly may be provided, in which the component parts thereof comprising the hinge jamb, strike jamb and header, are of unitary construction and which may be readily installed by one, unskilled person, without the need of special tools. Additionally, adjustment of the mitered jambs and header is effected by means of a single adjustment screw, which automatically members both miters simultaneously. The installation may be effected in approximately ten minutes' time, which is considerably less time than that required for other assemblies of this type heretofore used.

The parts of the present assembly are readily manufactured from conventional parts, which results in economy of manufacture. The construction of the component parts additionally facilitates packaging for shipping purposes.

While I have herein shown and described a preferred embodiment of my invention, it is nevertheless to be understood that various changes may be made therein, without departing from the spirit and scope of the appended claim.

What is claimed is:

A packaged door assembly for installation in a conventional rough door frame of a wall opening comprising a pair of jamb units and a header, the jamb units being adapted for vertical positioning in parallel relation to the sides of the door frame and the header spanning the upper ends of the jamb units, each of said jamb units and header including a central frame member, the lateral extremities of which are provided with longitudinal grooves, the jamb units and header further including casings having tongues adapted for insertion in the longitudinal grooves of the central frame member, the proximate ends of the frame member and casings of the jamb units and header being complementally mitered and in slidable engagement, a miter clip engaged with the frame member of each jamb unit at the upper terminal thereof, each of said miter clips being substantially coextensive with the width of the frame member of each jamb unit, each miter clip including a stationary body portion in flush engagement with, and secured to, the rear face of the frame member, the upper portion of said miter clip extending beyond the upper limit of the jamb unit frame member being bent inwardly and downwardly to a point below the upper terminal of said jamb unit, thereby providing a resilient portion adapted for engagement with the rear face of the jamb unit frame member, for effecting a close, tight miter joint and limiting the upward movement of the header, a shimming block affixed to the rear face of the frame member of one of said jamb units, and a single adjusting member positioned in an opening in the frame member of said other jamb unit, the adjusting member including a T-nut engaged with said frame member at the locus of the opening, the adjusting member further having a pressure screw threadedly engaged with, and extending through said T-nut, with a terminal thereof engaged with the rough door frame, said pressure screw being accessible from the inner side of said other jamb unit for moving said other jamb unit toward said first jamb unit effecting sliding movement of the mitered surfaces to raise the header against the tension of the resilient portion of said miter clip until the mitered surfaces are matched.

References Cited by the Examiner

UNITED STATES PATENTS

1,159,229	11/15	Keith	20—92 XR
2,341,906	2/44	Cowbourne	20—11
2,481,721	9/49	Carper	20—12
2,552,515	5/51	Bremer	20—12 X
2,730,773	1/56	Logue	20—12
2,753,602	7/56	Ringle	20—11
2,835,933	5/58	Evans	189—46

CHARLES E. O'CONNEL, *Primary Examiner.*

HARRISON R. MOSELEY, *Examiner.*