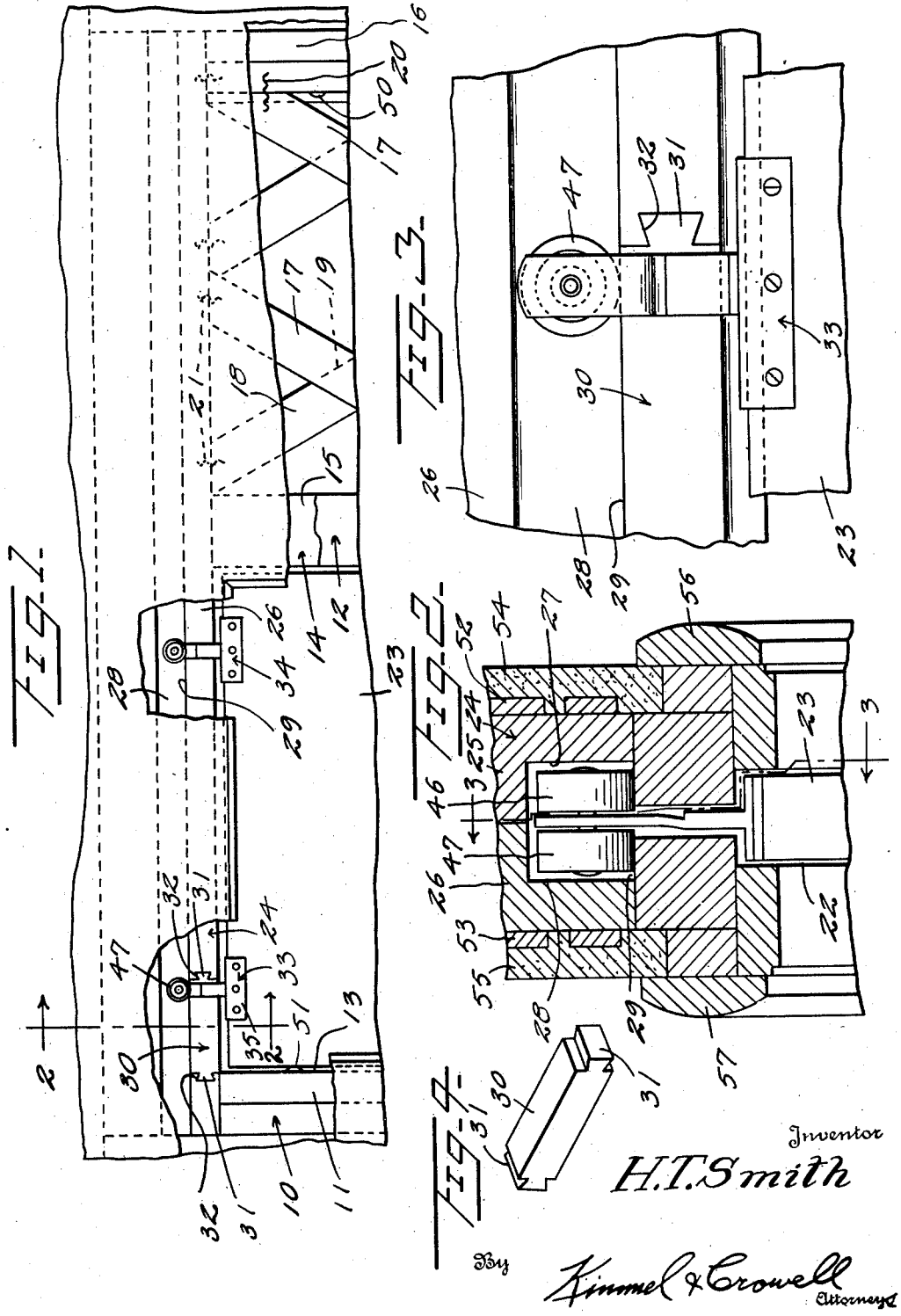
Oct. 31, 1944. H. T. SMITH 2,361,882

SLIDING DOOR STRUCTURE

Original Filed Aug. 10, 1942



Patented Oct. 31, 1944

2,361,882

UNITED STATES PATENT OFFICE

2,361,882

SLIDING DOOR STRUCTURE

Harry T. Smith, Flint, Mich.

Original application August 10, 1942, Serial No. 454,324. Divided and this application December 3, 1942, Serial No. 467,760

1 Claim. (Cl. 16—96)

This invention relates to sliding doors for dwellings or other type buildings and is a division of my copending application Serial Number 454,324, filed August 10, 1942.

An object of this invention is to provide an improved construction for slidingly supporting a door so that the door may freely move between the walls of a conventional partition.

Another object of this invention is to provide an improved supporting frame for the door which includes an improved track forming part of the frame.

A further object of this invention is to provide an improved door frame which includes means to which the plaster lathing, or other type of material or finish may be attached.

A further object of this invention is to provide an improved track structure which includes removable key members so that the door may be removed freely from the frame, or the rollers removed from the track.

With the foregoing objects and others which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically referred to and illustrated in the accompanying drawing, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawing:

Figure 1 is a detail side elevation partly broken away of a sliding door constructed according to an embodiment of this invention,

Figure 2 is a sectional view taken on the line 2—2 of Figure 1,

Figure 3 is a sectional view taken on the line 3—3 of Figure 2, and

Figure 4 is a perspective view of one of the key members forming part of the track.

Referring to the drawing, the numeral 10 designates generally a frame structure for mounting in a partition wall, and the frame structure 10 includes an upright 11 disposed at one side of the door opening 13. The frame structure 10 also includes opposed upright frame members 12 and 14 which are of like construction. The frame members 12 and 14 form a part of the partition wall and include an upright 15 and an upright 16. The upright 16, in the present instance, is formed of a pair of 2 x 4's which are disposed in face abutting relation. A plurality of crossed bracing and wall forming boards 17 and 18 are secured between the uprights 15 and 16 and at the crossing point of the boards or strips 17 and 18, the two strips are rabbeted or recessed as at 19, and secured together by means of glue or the like.

The ends of the strips or boards 17 and 18 are secured to the uprights 15 and 16, respectively, by means of corrugated fastening members 20 and 21. The two wall forming frame members 12 and 14 form a space 22 therebetween within which the sliding door 23 is adapted to be disposed when in open position. A header structure, generally designated as 24, is disposed on the upper ends of the uprights 11, 15 and 16 and comprises a pair of face abutting boards 25 and 26. The boards 25 and 26 are formed in their confronting faces adjacent the lower portions thereof with confronting channels 27 and 28, respectively, and the lower sides of the channels 27 and 28 form a track 29 on which the supporting rollers for the door 23 are adapted to roll.

The header boards 25 and 26 adjacent an end of each thereof are provided with removable key members 30 which are formed at the opposite ends thereof with keys 31 engaging in keyways 32 which are formed in the boards 25 and 26 below the track 29. These key members 30 are provided for the purpose of removing the supporting rollers and also for inserting the rollers after the header 24 has been secured to the frame structure 10.

The upper sides or faces of the key members 30 form a continuation of the track 29. The door 23 is movably suspended from the header 24 by means of a pair of suspension members 33 and 34. In order to cushion the door 23 when it is moved in the door receiving chamber 22, the uprights 16 have secured thereto a bumper or cushioning member 50. The upright 11 also may have secured thereto one or more cushioning members 51 so as to cushion the door 23 when it is moved to a closed position.

The frame structure hereinbefore described is of such a width that it may readily be disposed in a partition wall of conventional thickness and the frame structures 12 and 14 may each have laths 52 and 53 secured to the outer sides thereof so that plaster 54 and 55 may be mounted on the laths 52 and 53 in the conventional manner.

The door frame structure may have the usual trim on the opposite sides thereof, as indicated at 56 and 57. In the mounting of this door and frame structure in a wall, the usual studs and headers may be removed and the frame structure 10 inserted in the desired position. When the frame structure 10 is in applied position, the suspension members 33 and 34 may be inserted

through the openings formed by removal of the key members **30** so that the rollers **46** and **47** will engage on the track **29**. The U-shaped bracket member **35** may then be secured to the upper end of the door **23** by the fastening members **39**. The rollers **46** and **47** are preferably constructed out of fibrous or plastic material so that they will not be noisy in their movement over the track **29**. The door suspension structure hereinbefore described is constructed substantially entirely out of wood with the exception of the suspension members **33** and **34**. It will, of course, be understood that the sliding door structure may be inserted in a new dwelling during the positioning of the inner wall or after the wall finish is applied.

What I claim is:

A supporting track structure for a sliding door comprising a pair of face abutting boards, said boards having their confronting sides formed with opposed horizontal channels, the lower sides of the channels constituting a track, each board below said track being rabbeted to provide a downwardly opening passage, each board having a horizontal cut out adjacent an end thereof and through the track thereof, the opposed ends of said cutout being provided with horizontally disposed dovetail keyways, and a removable key member insertible in said cutout and provided at the opposite ends thereof with dovetail keys for horizontal insertion in said keyways, the upper sides of said key members forming a continuation of the track and said key members being solely supported by said keys.

HARRY T. SMITH.