June 4, 1940. G. KLUMPP 2,203,333

SAFETY BOLT

Filed Feb. 2, 1938

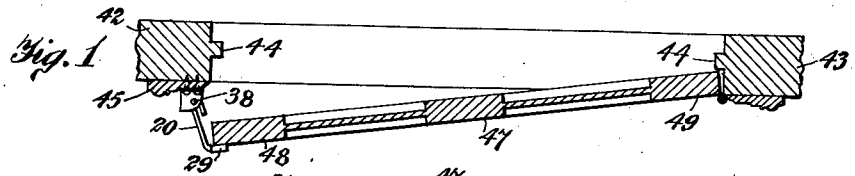


Fig. 1

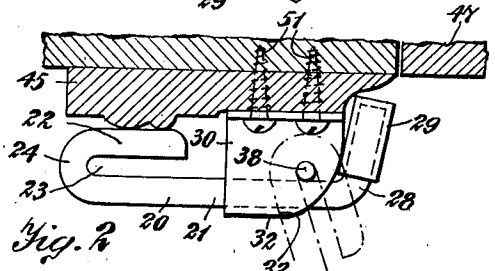


Fig. 2

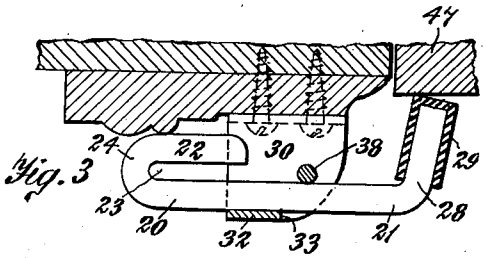


Fig. 3

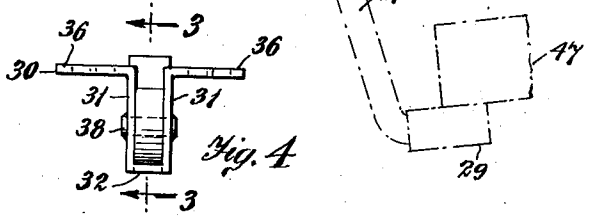


Fig. 4

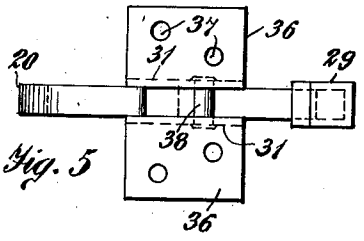


Fig. 5

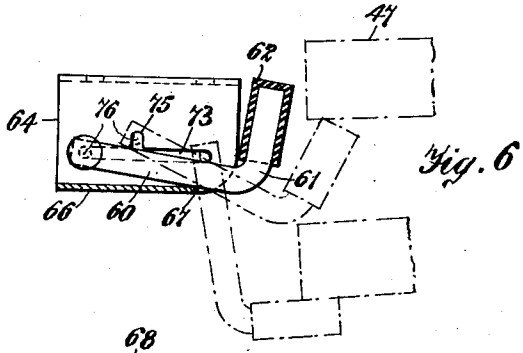


Fig. 6

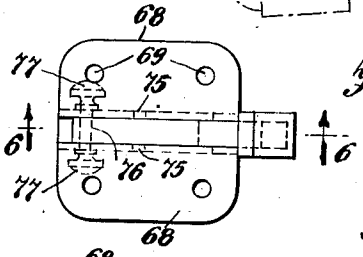


Fig. 7

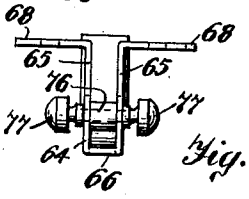


Fig. 8

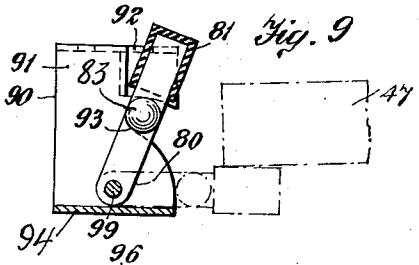


Fig. 9

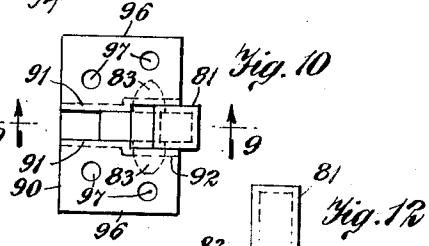


Fig. 10

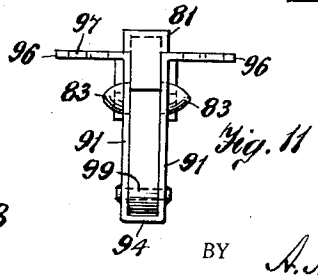


Fig. 11

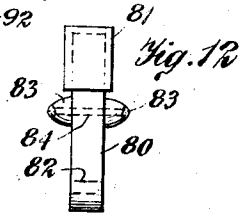


Fig. 12

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SAFETY BOLT

Gottlob Klumpp, New York, N. Y.

Application February 2, 1938, Serial No. 188,221

3 Claims. (Cl. 292—67)

This invention relates to a safety bolt.

The object of the invention is the production of safety bolt, by means of which a swinging door and the like can be maintained completely open or closed or positioned and secured in various open positions.

The second object of the invention is the production of a safety bolt which takes the place of the so-called chain bolt and which can be easily manipulated at one side of the door only.

In the accompanying drawing Fig. 1 represents a horizontal section on a reduced scale of a door frame and its swinging door with the safety bolt positioned, to hold the door in a partial open position; Fig. 2 shows a horizontal section on a larger scale of a portion of the door frame with its jamb and door, and the safety bolt in full lines positioned to permit the door to be fully opened, and in dotted lines indicates the position of the safety bolt and door, with the latter partly swung open; Fig. 3 indicates a view similar to Fig. 2 with the safety bolt holding the door in its closed position; Fig. 4 shows a left hand view of the safety bolt with its appurtenances; Fig. 5 indicates a top view of Fig. 4; Fig. 6 represents a section of Fig. 7, on the line 6, 6 of a modification with the bolt and the door in different positions; Fig. 7 shows a top view of the bolt indicated in Fig. 6; Fig. 8 shows a left hand view of the bolt with its appurtenances indicated in Fig. 6; Fig. 9 represents a section on the line 9, 9 of Fig. 10 of a further modification of the bolt, with dotted lines indicating the bolt with its door in a partial open position; Fig. 10 represents a top view of the bolt indicated in Fig. 9; Fig. 11 is a left hand view of the bolt shown in Fig. 9 and Fig. 12 represents an end view of the bolt per se indicated in Fig. 9.

Referring to Figs. 1 to 5 the safety bolt 20, per se, comprises the longitudinal outer member 21, with the parallel longitudinal inner member 22, at one end thereof and spaced therefrom. The members 21 and 22 form the guideway 23 between them.

The members 21 and 22 of the bolt are connected at one end by the curved connection 24. A locking nose 28 extends from the member 21 at an angle thereto. The said nose in this instance carries the cap 29 of flexible material, preferably of rubber. The said cap 29 prevents the nose 28 indenting or otherwise injuring the door when bearing against the same.

The bolt 20 is adjustably supported in the U-shaped support 30. The latter comprises the side members 31, joined for a portion thereof by the connecting member 32 having the stop end 33. Flanges 36 having the openings 37 extend from the side member 31. A hinge pin 38 extends between and is fastened to the side members 31. A door frame is indicated with the vertical members 42 and 43, having the stops 44. One of the jambs of the door frame is shown at 45. The swinging door 47 having the vertical members 48 and 49 is hinged to the member 43 of the door frame in the usual manner. The flanges 36 of the support 30 are fastened to the jamb 45 by the screws 51.

In Fig. 1 the safety bolt 20 is positioned in its right hand position supported on the hinge pin 38, with the cap 29 of the locking nose 28 bearing against the member 48 of the door 47, to enable the latter to be partially swung open. In Fig. 2 the bolt 20 is positioned as shown in full lines in its left hand position clear of the door 47, so that the latter can be fully opened. In said Fig. 2 bolt 20 in dotted lines is shown supported on the hinge pin 38, with the lower face of the member 21 bearing against the stop end 33, to enable the door 47 to bear against the cap 29 with the door partially opened.

In Fig. 3 the bolt 20 is positioned to the right of the position indicated in Fig. 2 with the cap 29 bearing against the door 47, and the outer face of the inner member 22 bearing against the jamb 45. In this position of the bolt 20 the door 47 is prevented swinging open and is securely held in place.

Referring to Figs. 6, 7 and 8 the modified safety bolt per se is indicated with the longitudinal member 60, having the locking nose 61 at its swinging end with the cap 62 of flexible material. The U-shaped support for the bolt is indicated at 64, and comprises the side members 65 with the connecting member 66 having the stop end 67. Flanges 68 having the openings 69 extend from the side members 65. Each of said side members 65 is provided with the longitudinal slot 73 having the positioning slot 75 at right angles thereto. A hinge pin 76 having the knobs 77 at its ends, extends through and is tightly secured to the member 60 of the bolt, and its end portions slidably engage the slots 73 and can be locked with the positioning slots 75.

The U-shaped support 64 is fastened to jamb 45 of the door frame as described for the support 30. When the bolt having the member 60 is positioned as shown in full lines in Fig. 6, with the hinge pin 76 at the left hand end of the slots 73, the door 47 can be swung fully open. When the bolt having the member 60 is moved

to the right with the hinge pin 76 engaging the positioning slots 75 as indicated in dotted lines in Fig. 6, the door 47 can be opened a small amount, as indicated in dotted lines.

When the hinge pin 76 is positioned at the right hand end of the slots 73, the bolt is swung down as indicated in dotted lines at the lower portion of Fig. 6, and the door 47 can be swung open to a greater extent. The knobs 77 are provided for each end of the hinge pin 76 so that the safety bolt can be used for doors swinging in opposite directions.

Referring to Figs. 9, 10, 11 and 12 the modification is indicated with the bolt per se 80, which at its swinging end is shown with the cap 81 of flexible material. At the other end of the bolt 80 is shown the opening 82.

At about the middle portion of the bolt 80 are indicated at its opposite sides the pair of adjusting knobs 83, which are fastened to a pin 84 extending through the bolt 80. The U-shaped support for the bolt is shown at 90. The latter support comprises the side members 91 having the extended portions 92 at the upper ends. Seats 93 are indicated in one of the edges of each of the side members 91. The outer ends of the members 91 are joined by the connecting member 94. Flanges 96 having the openings 97 extend from the members 91.

The bolt 80 is located between the side members 91 and hinged in place by means of the hinge pin 99 which extends through the opening 82 and has its ends in tight engagement with the members 91.

The U-shaped support 90 is also fastened to the jamb 45 of the door frame as described for the support 30. When the bolt 80 is positioned as indicated in full lines in Fig. 9 with the knobs 83 seated in the seats 93, the door 47 can be swung to its full open position. If the opening of the door is to be limited, the user grasps the adjusting knobs 83 and swings the bolt 80 to the position indicated in dotted lines in Fig. 9 and the door can be swung to the position indicated in dotted lines in said figure.

It will be noted that when the bolt 80 is swung to the position indicated in full lines in Fig. 9 that the swinging end of the said bolt 80 with the flexible cap 81 is positioned between the extended portions 92 of the members 91 of the support 90.

Various modifications may be made in the invention and the present exemplification is to be taken as illustrative and not limitative thereof.

Having described my invention I claim:

1. The combination of a U-shaped support fastened to the jamb of a door frame for a door, said support having side members and a connecting member with a stop end, said support having a hinge pin between its side members and a bolt slidably positioned in said support and adapted to be hinged on said hinge pin, and having an outer longitudinal member and an inner longitudinal member, the members of the bolt connected at one end by a curved connection, the outer member of the bolt at its end opposite said curved connection having a locking nose integral therewith and a cap of flexible material for said locking nose, said bolt adapted to be positioned to clear the door, and also to bear against said door to maintain it closed and said bolt when swung on said hinge pin adapted to bear its locking nose with its cap against said door to maintain the latter partially open.

2. The combination of a support comprising a pair of members joined by a connecting member, a hinge pin carried by said support, means to fasten said support to the jamb of a door frame, and a bolt comprising an outer longitudinal member and an inner longitudinal member spaced from the said outer member, the outer member of the bolt having a locking nose integral therewith at its outer end, said bolt adapted to be slidably positioned with the outer face of its inner member bearing against said jamb, and the outer member of the bolt positioned between said hinge pin and the connecting member of said support, said bolt in one position clearing the swinging end of a door for said door frame, and in another position having its locking nose bearing against the swinging end of said door.

3. The combination of a support comprising a pair of members joined by a connecting member, having a stop end, a hinge pin carried by the members of the support, means to fasten said support to one of the jambs of a door frame, a bolt comprising an outer longitudinal member and an inner longitudinal member, the members of the bolt spaced from each other and joined at one end by a curved connection, the outer member of the bolt having a locking nose integral therewith, said bolt movably positioned on said support with its outer member between said hinge pin and the connecting member of said support, said bolt adapted to be supported on said hinge pin with its curved connection bearing on the pin and the outer member of the bolt bearing against the stop end of the connecting member of the support and positioned with its locking nose bearing against a door for said door frame with the door swung to a partial open position.

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