April 8, 1952 L. G. ALLEN 2,592,230

DOOR CHECK

Filed March 26, 1949

Fig. 1.

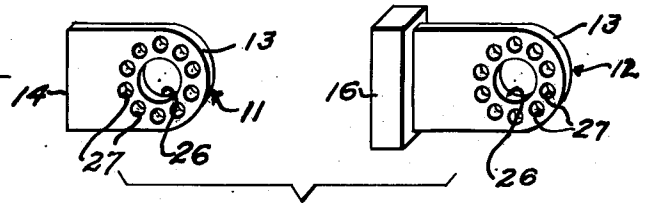


Fig. 2.

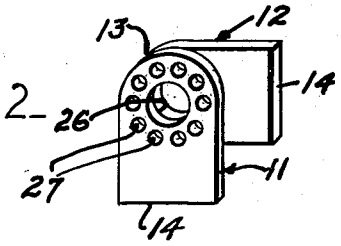


Fig. 3.

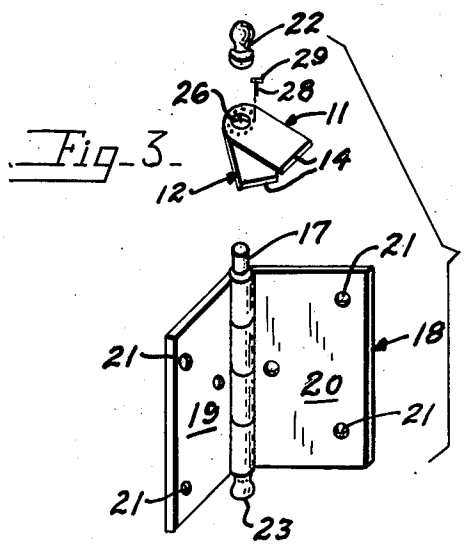
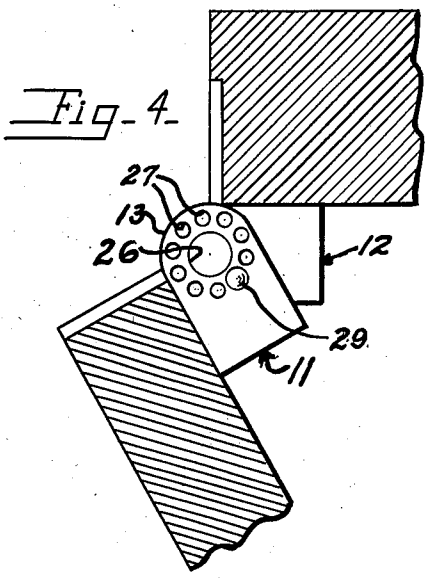


Fig. 4.



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DOOR CHECK

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1 Claim. (Cl. 16—137)

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The invention, in general, relates to means for limiting the swinging movement of a member in relation to a fixed member, and more particularly relates to an improved device for restricting the opening swing of a door or the like.

Heretofore, considerable attention has been devoted to the provision of devices for controlling the opening swing of doors or other hingedly mounted members, largely for the purpose of preventing damage to adjacent walls or articles. Many of these prior devices, presently on the market, constitute fixed elements secured to the base board of a wall to serve as an abutment or stop, to limit the swing of a door and thus prevent damage to a wall from the door knob or other projecting element on the door. It is obvious that this fixed member can either be secured to a wall or to the door itself and, such devices often include cushioning means as well as interlocking sockets and tongues to effect the same result. The principal disadvantages of these prior devices are almost apparent in that they project into a room or space and hinder movement of articles of furniture, as well as detract from the appearance of the room. The present invention is directed to an improved device for limiting the swinging movement of a door which obviates all of the inherent disadvantages of prior devices, and yet performs its objectives effectively.

A primary object of the invention is to provide an improved door check for application to a conventional hinge to limit the swinging movement of a door.

Another important object of the present invention is to provide an improved door check of the indicated nature which is additionally characterized by its simplicity of construction, its ease of application to a conventional door hinge, and its inexpensiveness of production.

A still further object of the invention is to provide an improved door check of the aforementioned character which can be readily applied to a conventional door hinge by the unskilled as well as the skilled.

Other objects of the invention, together with some of its advantageous features, will appear from the following description of a preferred embodiment thereof. It is to be understood, however, that I am not to be limited to the precise embodiment shown, as my invention, as defined in the appended claim, can be embodied in a plurality and variety of forms.

Referring to the drawings:

Fig. 1 is a perspective view, in development, of two similar elements constituting the principal

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elements of the preferred embodiment of my invention.

Fig. 2 is a perspective view of the preferred embodiment of my invention, with the conventional hinge omitted, illustrating the angular relationship in which the two elements shown in Fig. 1 are assembled and interlocked.

Fig. 3 is a development of the preferred embodiment of the present invention illustrating the mode of application thereof to a conventional door hinge.

Fig. 4 is a longitudinal, fragmentary cross sectional view of the preferred embodiment of my invention in operative position on the top of a conventional hinge.

In its preferred form, the improved door check of my present invention preferably comprises, in combination with a hinge, a pair of similar sheets, each having a relatively large opening at one extremity thereof for passing the pintle of the hinge, as well as a plurality of apertures therein arranged around said relatively large hole, together with a pin for adjustably fitting any selected pair of registered apertures of said sheets to variably secure said sheets together in various angular relationships; said connected sheets being interposed between one enlarged end of the pintle of a hinge and the plates of the hinge.

As particularly illustrated in Figs. 1 and 2 of the annexed drawings, I provide a pair of similarly constructed and shaped sheets 11 and 12, which preferably are fabricated from a light weight metal, such as aluminum or a relatively thin section brass, but which can be fabricated of any other desired material. Each of the sheets 11 and 12 conveniently are stamped from such selected material, and it is apparent that one die will serve for the stamping out of the two sheets. As shown, each of these sheets is formed to a generally rectangular configuration, although it is not essential that the sheets be in such configuration, and in order to avoid any possible damage to the door jamb or wall in which my improved door check has been applied, is hung or hingedly mounted, I preferably form the end 13 of each of these sheets to an arcuate shape. Moreover, in order to avoid any likelihood of damage to a wall adjacent to the door upon the hinge of which my improved door check has been mounted, the opposite end 14 of each of the sheets 11 and 12 are conveniently lined or provided with a cushioning element 16, such as soft rubber which can be cemented to the sheets readily.

In accordance with my invention, means are provided in each of the sheets 11 and 12 for seat-

ing the sheets adjacent to the top or to the bottom of the pintle 17 of a conventional or standard type hinge, generally designated by the reference numeral 18 in the accompanying drawings and consisting of a pair of opposed plates 19 and 20, having suitable apertures 21 therein for fastening the plates to a door and a door jamb. As is well known, the pintle 17 of a conventional hinge is screw threaded at the top and bottom thereof for threadedly receiving ornamental top and bottom members 22 and 23, respectively. Moreover, these means afford the seating of the sheets 11 and 12 in operative position in any selective one of a plurality of angular relationships one to the other. To this end, each of the sheets 11 and 12 is formed with a relatively large opening 26 adjacent one longitudinal extremity thereof for passing the pintle pin 17 of the hinge 18, as well as with a plurality of relatively small apertures 27 arranged in circular formation about the large opening 26, and spaced apart as shown. In addition, I provide a relatively small pin 28, having a flat head 29 of somewhat larger diameter than the diameter of the shank of the pin which may be passed through aligned or registered apertures 27 when the two sheets 11 and 12 are arranged in superposed relationship, and the apertures 27 of one sheet are placed in registry with the apertures 27 of the other sheet. It is obvious that the sheets 11 and 12 can be preliminarily arranged in any desired angular relationship one to another, and the pin 28 then passed through aligned apertures 27 of the two sheets with the head 29 of the pin seating upon the top sheet of the pair of assembled sheets. Thereafter, the two connected sheets 11 and 12, arranged as aforesaid in angular relationship are mounted upon the top of the hinge 18, with the upper portion of the pintle 17 protruding through the aligned large openings 26 of the two assembled sheets 11 and 12. To complete the assembly or placement of the door check of the present improvement in operative position, it is only necessary to screw the top ornamental knob of the pintle upon the upper threaded portion of the pintle. Reference is made to Fig. 3 of the accompanying drawings which illustrate, in development, the foregoing steps of mounting the connected sheets 11 and 12 upon the pintle 17 of the hinge and at the top of the hinge.

In Fig. 4 of the annexed drawings, I have illustrated my improved door check in operative position on a conventional hinge, and this view illustrates the end 14 of one of the plates bearing against a wall adjacent to the door upon which the hinge containing my improved door check is mounted, thus limiting the opening swing of the door.

Inasmuch as the two sheets 11 and 12 can readily and inexpensively be stamped from suitable material by the use of a single die, and the opening 26 as well as apertures 27 punched from the material in a single operation, it is apparent that the cost of producing the sheets 11 and 12 is relatively nominal. It is also to be noted that there are but three simple steps for the housewife or any artisan to perform in mounting the door check in operative position, namely, removing the upper knob of the pintle 17, arranging the sheets 11 and 12 in the desired angular relationship, and connecting the same by the use of the small pin 29, and then mounting the same on the top of the pintle and replacing the top ornamental knob of the pintle by screwing the same on to the upper threaded portion of the pintle. I have successfully applied my improved door check to a number of door hinges, and have found that it effectively limits the swing of the door, without damaging the adjacent wall in which the door is hung.

It is to be understood that the appended claim is to be accorded a range of equivalents commensurate in scope with the advance made over the prior art.

I claim:

A door check comprising a hinge, including a pair of hinge plates pivotally mounted on a pintle pin and a knob removably secured to the top of the pintle pin, a pair of similar plates removably mounted on said pintle pin between said knob and the top edges of said hinge plates, each of said pair of similar plates having an opening therethrough for passing said pintle pin as well as having apertures therethrough, and an escutcheon pin piercing such apertures for retaining said pair of similar plates on said pintle pin in any selected one of a plurality of angularly related positions.

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