

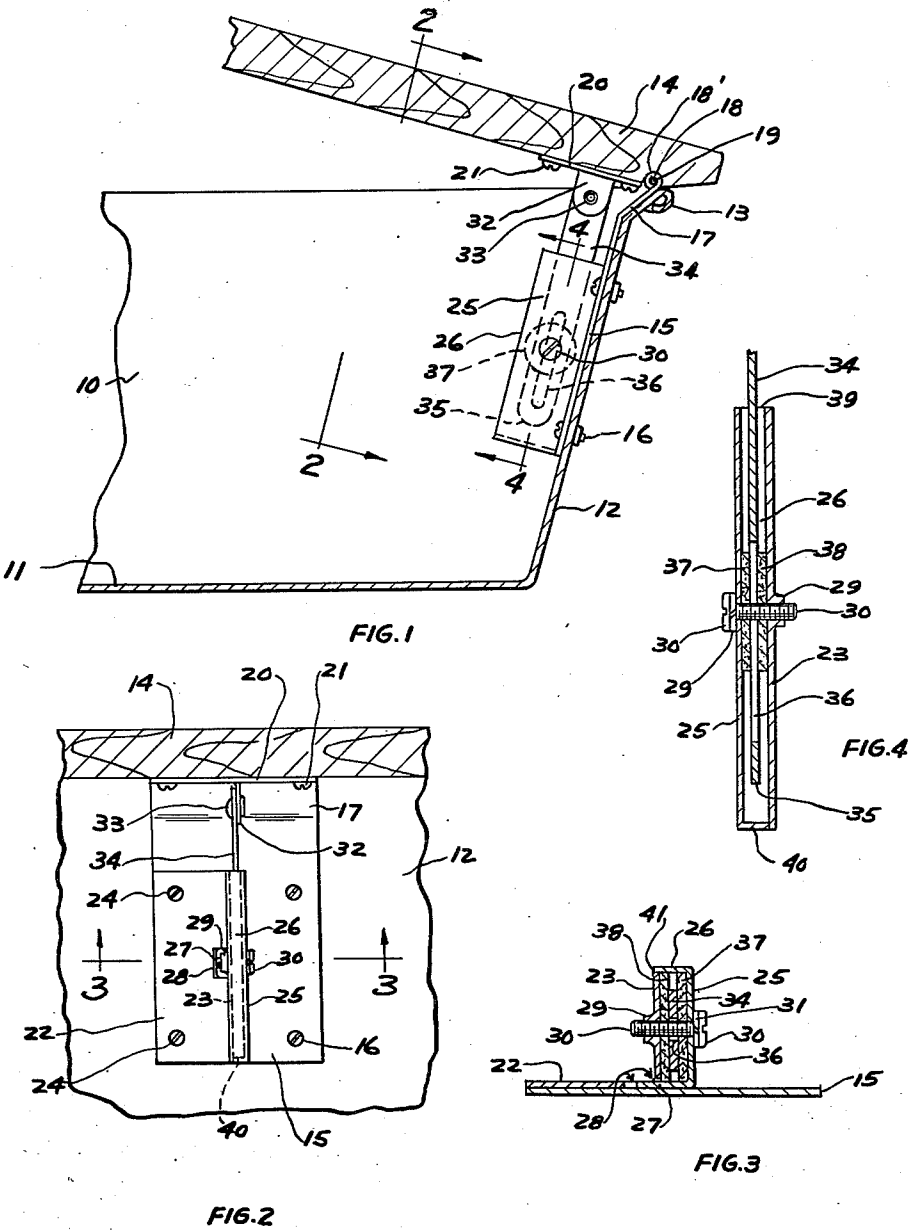
Dec. 10, 1957

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2,815,528

HINGE AND CHECK

Filed July 21, 1955



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2,815,528

HINGE AND CHECK

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Application July 21, 1955, Serial No. 523,572

4 Claims. (Cl. 16—140)

This invention relates to a hinge and check, and more particularly to a novel construction of check adapted for use in conjunction with a door hinged to a base.

It is an object of the present invention to provide a novel check construction wherein a check-plate pivotally suspended from the door is slidably positionable within a check housing in conjunction with a pair of leather washers snugly nested within the housing and frictionally engaging opposite sides of the check-plate.

It is a further object of the present invention to provide a novel check construction wherein the frictional engagement of the washers with the check-plate may be regulated.

It is a further object of the present invention to provide a check device in conjunction with a hinge construction which may be used for a desk top hinged with respect to a desk body incorporating a storage space, for illustration.

These and other objects will be seen from the following specification and claims in conjunction with the appended drawing in which:

Fig. 1 is a fragmentary elevational section illustrating the mounting of the present check with respect to a hinged desk top construction.

Fig. 2 is a fragmentary section taken on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary section taken on line 3—3 of Fig. 2; and

Fig. 4 is a fragmentary section taken on line 4—4 of Fig. 1.

It will be understood that the drawing illustrates merely the preferred embodiment of the invention and that other embodiments are contemplated within the scope of the claims hereafter set forth.

Referring to the drawing, the present check is illustrated with respect to the hinged closure or top of a storage compartment for a school desk, for illustration.

In Figure 1 the storage compartment includes a bottom wall 11 with an upwardly and outwardly inclined rear wall 12 which terminates at its upper end in the outturned and beaded reinforcing element 13 which is formed throughout the periphery of the storage container including the upper portions of the side walls 10.

There is positioned upon the top of the container or base the generally rectangularly shaped desk top 14 and which is pivotally mounted adjacent its rear transverse edge, preferably at two or more points by the hinge construction now described.

Said hinge includes the stationary plate 15 which is secured by fasteners 16 to rear wall 12, and at its upper end terminates in the inclined portion 17 corresponding to the outwardly inclined beading forming the peripheral upper edge of the base 10—11—12. Hinge element 17 terminates in the hinge formation 18 comprising spaced pintle receiving portions or knuckles receiving therebetween the pintle-receiving portion or knuckle of the hinge portion 20, which is nested within a corresponding recess 18' formed in the under surface of the closure or desk top 14.

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The said hinge element is interconnected with the movable portion 20 of the said hinge as by the conventional hinge pin 19, hinge element 20 being secured to the under surface of door 14 as by the fasteners 21.

The check mechanism, as shown in Fig. 1, is mounted upon the rear wall 12 for cooperation with the elongated check-plate 34 which is pivotally connected at one end as at 33 to the outwardly extending projection 32 which forms a part of hinge element 20, and in the preferred embodiment is struck outward therefrom and normal thereto.

The check mechanism includes the angle plate 22 which is suitably secured to hinge element 15 as by the fasteners 24, or by welding, and includes the outwardly projecting normally arranged housing closure plate 23.

The check housing also includes the elongated wall 25 in parallel spaced relation to plate 23 and the upper longitudinal flange on wall 25 providing a top wall 26 which is adapted to overlie loosely the top longitudinal edge of plate 23 as at 41. The lower central portion of wall 25 terminates in a normally extending tab 27 which is adapted for slidably positioning within the central transverse slot 28 formed within a central portion of plate 22 at the lower end of plate 23 to thereby guide the relative movement of plate 25 with respect to plate 23.

There is provided upon a central portion of plate 23 the outwardly projecting boss 29 which is transversely apertured to threadedly receive the pressure regulating screw 30 which extends transversely through wall 25 of the housing and which incorporates adjacent its head a suitable lock washer 31. This screw 30 retains wall 25 on plate 23. Plates 22 and 23 are integral.

The elongated check plate 34 is rounded at its lower end as at 35 and includes the elongated central slot 36 through which regulating screw 30 extends loosely to thereby permit relative sliding movements of the check-plate 34 longitudinally of said housing.

A pair of flexible washers 37 and 38 preferably constructed of leather are mounted upon regulating screw 30 and snugly bear against the interior surfaces of the housing wall 25 and plate 23. Said washers also frictionally and slidably engage the opposite surfaces of check-plate 34 to thereby provide a desired checking action to closing movements of door 14.

In the case of a desk, where the desk top 14 may be relatively heavy, the pressure regulating screw 30 may be so adjusted with respect to the housing and plate 23 as to determine the correct amount of friction such as will permit the desk top 14 to either fall slowly, or on the other hand, to require a slight manual pressure for closing the same.

By adjustment of the screw 30 the housing may be drawn towards plate 23 to the extent desired for regulating the frictional engagement of the washers with the check-plate. Should these washers become worn, the extent of friction maintained can be regulated by merely tightening the screw 30. Plate 25 terminates at its lower end in Fig. 4 in the bottom wall defining flange 40.

Having described my invention, reference should now be had to the claims which follow for determining the scope thereof.

I claim:

1. A check for a closure hinged to a base comprising a hollow and narrow elongated housing including opposed side walls, an elongated check-plate with a central elongated slot pivotally connected at one end to the closure, extending loosely into one end of the housing and longitudinally movable therein, a pressure regulating screw extending transversely through the walls of the housing, and through the check-plate, threadedly engaging one of the said walls for drawing the walls towards each other, and a pair of leather washers in said housing snugly

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bearing against said walls mounted on said screw and frictionally engaging opposite sides of the check-plate, one wall of the housing comprising an elongated flat plate secured to and projecting normally from said base, the remainder of the housing including the other side wall, being mounted upon said one wall in spaced relation and adjustably secured thereon by said screw, said one wall having a transverse slot therein, and a guide tab projecting from the other side wall and adjustably movable in said transverse slot.

2. A check for a closure hinged to a base comprising an angle plate secured to said base, a housing including an upright elongated flange on said plate forming a closure for said housing, and an elongated wall spaced from said flange, there being a transverse slot formed in said angle plate intermediate its ends, said wall having a centrally arranged laterally projecting tab slidably positioned in said plate slot, an elongated check plate with a central elongated slot and pivotally connected at one end to the closure, extending loosely into the housing and longitudinally movable therein, a pressure regulating screw means extending through the said wall loosely through said check-plate and through said flange for drawing said wall towards said flange on adjustment of said screw means, and a pair of leather washers in said housing snugly bearing against said flange and said wall respectively, mounted on said screw and frictionally engaging opposite sides of the check-plate.

3. In combination with a hinge having stationary and movable hinge plates, an angle plate secured to one of said hinge plates, a housing including an upright elongated flange on said angle plate forming a closure for said housing, and an elongated wall spaced from and parallel to said flange, an elongated check-plate with a

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central elongated slot, pivoted at one end to the other of said hinge plates on an axis parallel to the hinge axis, extending loosely into one end of the housing parallel to said flange and longitudinally movable therein, a pressure regulating screw extending through said wall, loosely through the check-plate, and threadedly engaging said flange adapted for drawing said wall towards said flange, and a pair of leather washers in said housing snugly bearing against said flange and the wall respectively, mounted on said screw and frictionally engaging opposite sides of the check-plate.

4. A check for a closure hinged to a base comprising an angle plate secured to said base, a housing including a wall and an upright elongated flange on said plate forming a closure for said housing, an elongated check-plate with a central elongated slot and pivotally connected at one end to the closure, extending loosely into the housing and longitudinally movable therein, a pressure regulating screw means extending through the said wall loosely through said check-plate and through said flange for drawing said wall towards said flange on adjustment of said screw means, a pair of leather washers in said housing snugly bearing against said flange and said wall respectively, mounted on said screw and frictionally engaging opposite sides of the check-plate, and co-operating means between said angle plate and wall for guiding relative movements therebetween.

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