Nov. 30, 1954 R. G. MANCHESTER 2,695,808

ADJUSTABLE STRIKE PLATE

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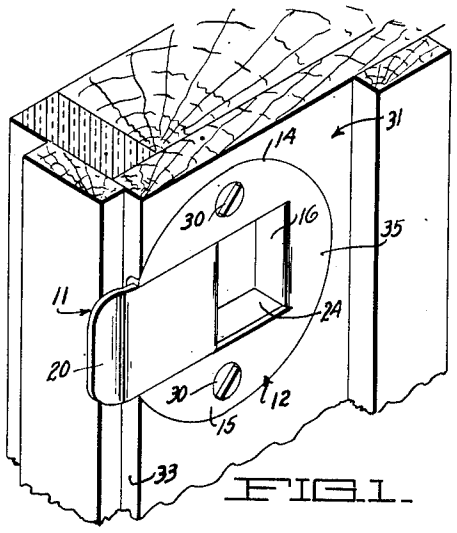


FIG. 1.

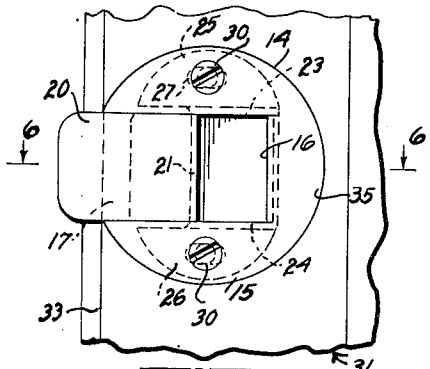


FIG. 2.

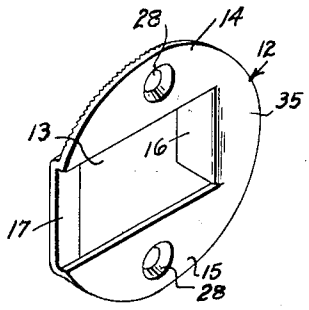


FIG. 3.

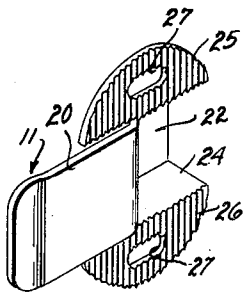


FIG. 4.

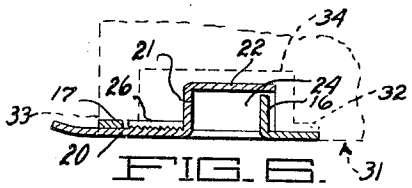


FIG. 6.

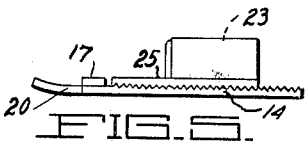


FIG. 5.

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ADJUSTABLE STRIKE PLATE

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1 Claim. (Cl. 292—341.18)

This invention relates to improvements in a strike plate adapted to be secured to a door jamb for engagement by the bolt of a door lock. More specifically, the invention pertains to an adjustable strike plate assembly.

It is generally difficult to properly install a strike plate so that the keeper edge of the plate just engages the lock bolt when the door is closed. This is so because the door must be open during installation of the strike plate. A resulting slight clearance between the keeper edge and the bolt will permit the door to rattle, whereas insufficient clearance will prevent the bolt from moving to locked position. Also, due to shrinkage or swelling of the wood of the door frame due to dampness, etc., resetting of the strike plate is necessary or desirable from time to time to properly retain the lock.

Although adjustable strike plates have been proposed heretofore, they have generally proved commercially unsatisfactory, probably because they were either too complicated and unsightly, were too expensive, or required considerable labor consuming mortising of the door frame in order to install the same.

A principal object of the present invention is to overcome the above-noted defects in prior adjustable strike plates.

Another object is to provide an adjustable strike plate having no visible adjustment features such as slots which would appear unsightly and tend to collect dust and dirt.

A further object is to facilitate forming an adjustable strike plate assembly of stamped sheet material.

A further object is to simplify the labor necessary to mortise the door jamb for mounting of a strike plate.

A further object is to provide an adjustable strike plate having a dust cup portion formed integral therewith whereby to block from view the usual unsightly mortised portion of the door jamb.

The manner in which the above and other objects of the invention are accomplished will be readily understood on reference to the following drawings wherein:

Fig. 1 is a perspective view of an adjustable strike plate assembly embodying the present invention, illustrating the same mounted in a conventional door jamb.

Fig. 2 is a front view of the strike plate assembly.

Figs. 3 and 4 are separate perspective views of the retainer plate and strike plate components, respectively, of the strike plate assembly.

Fig. 5 is a plan view of the strike plate assembly.

Fig. 6 is a sectional plan view of the assembly and is taken along the lines 6—6 of Fig. 2.

Referring to the drawings, the strike plate assembly comprises an inner strike plate generally indicated at 11 and an outer substantially circular retainer plate, generally indicated at 12.

The retainer plate is formed of a single sheet of metal or similar material. The latter has a rectangular opening 13 defining top and bottom segmental or wing sections 14 and 15. The right-hand end of the opening 13 is formed by an arcuate web 35 and an inwardly extending wall 16 struck out from the plate and bent inwardly at substantially 90°. A web 17 extending between the sections 14 and 15 defines the left-hand edge of the opening 13 and is offset rearwardly, as illustrated in Fig. 3, by an amount equal to the thickness of the strike plate.

The strike plate 11 is formed of a single sheet of metal or similar material and comprises a tongue 20. The tongue is bent from a rearwardly extending wall 21 (Fig. 6) which extends forwardly from a rear wall portion 22. Top and bottom walls 23 and 24 are also formed forwardly from the wall portion 22 and these walls terminate in outwardly extending segmental or wing sections 25 and 26. The latter extend parallel to the tongue 20, but are offset rearwardly therefrom by an amount equal to the thickness of the retainer plate. Since the thicknesses of the strike plate and retainer plate are preferably the same, the forward surfaces of the sections 25 and 26 lie in the plane of the rear surface of the tongue 20.

The forward surfaces of the segmental sections 25 and 26 are vertically serrated, as will be seen in Fig. 4, to interlock with a mating serrated surface formed on the rear surface of the retainer plate 12.

In assembling the parts, the tongue 20 of the strike plate is fitted in the opening 13 and over the offset web 17. The segmental sections 25 and 26 are fitted against the similar sections 14 and 15, respectively, of the retainer plate. When assembled, elongated slots 27 in the segmental sections of the strike plate are aligned with countersunk holes 28 formed in the segmental sections of the retainer plate to receive screws 30 provided to secure the strike plate assembly to a door jamb, generally indicated at 31 (Figs. 1, 2 and 3). In assembled condition the wall 16 of the retainer plate forms a closure for the right-hand end of the dust cup formation formed by the walls 21, 22, 23 and 24.

An important feature of the invention is the ease with which the door jamb may be mortised to receive the strike plate assembly. In order to insert the strike plate assembly, a cylindrical cut-out portion 32 is made in the door frame or door jamb by a suitable auger to a depth equal to the combined thicknesses of the strike plate and retainer plate segmental sections. The diameter of this cut-out portion is made equal to the diameter of the retainer plate. Preferably, although not necessarily, the cut-out portion 32 is located so that its left-hand portion lies substantially tangent to the left-hand edge 33 of the door jamb. In such case the left-hand edge of the web 17 lies in the plane of the left-hand edge 33 of the door jamb.

A second cut-out section 34 is mortised centrally of the cut-out portion 32 to receive the cup portion of the assembly. Since the cup portion effectively hides the cut-out section 34, the latter need not be mortised to exact size and may be made considerably larger than would otherwise be necessary.

In adjusting the assembly, the screws 30 are loosely inserted to a position wherein the assembly is held in place but wherein the strike plate may yet be slid back and forth by an amount permitted by the elongated slots 27. The door is closed and by grasping the outer left-hand end of the tongue 20, the strike plate is adjusted until the wall 21 thereof, forming the keeper edge, lightly engages the lock bolt (not shown). The door is then reopened and the screws are firmly secured in place.

It will be noted on reference to Fig. 2 that the radii of the segmental sections 25 and 26 are substantially smaller than the radius of the retainer plate 12, thereby permitting the strike plate to be adjusted within the limits permitted by the slots 27 while retaining the segmental sections 25 and 26 located and hidden behind the corresponding segmental sections 14 and 15 of the retainer plate.

It will further be noted, particularly on reference to Fig. 6, that as the strike plate 11 is adjusted, it moves relative to the wall 16 of the retainer plate which thus forms a continuous enclosure for the right-hand end of the dust cup portion 22 regardless of the adjusted position of the strike plate.

In view of the offset relationship existing between the segmental sections 25, 26 and tongue 20 of the strike plate, and web 17 of the retainer plate, the outer surface of the tongue will lie flush with the outer surface of the retainer plate, thus giving the appearance of a single plate, there being no exposed slots or openings which would otherwise collect dust or dirt, as well as present

an unsightly appearance, regardless of the adjusted position of the strike plate.

It will be seen that the rear surface of the web **17** lies in the same plane as the rear surfaces of the segmental sections **25** and **26** of the strike plate (see Fig. 5) so that when the assembly is secured to the bottom of the cut-out portion **22** in the door jamb the web **17** and sections **25** and **26** will engage this bottom and be effective to adequately support the assembly in place with the outer surfaces of the tongue and retainer plate lying flush with the adjoining face of the door jamb.

Having thus described the invention, what I desire to secure by United States Letters Patent is:

An adjustable strike plate assembly for door locks comprising; a retainer plate formed of sheet metal and having an opening therein provided with opposed parallel edges, the portions of said plate outwardly of said edges comprising coplanar wings, a strike plate formed of sheet metal and having a tongue slidably fitting between said opposed edges and occupying one end of said

opening in flush relation to said wings, a wall bent laterally from said tongue along a first fold line extending between said edges to form a keeper shoulder and then bent to form a back wall offset from said tongue and underlying the portion of said opening not occupied by said tongue, side walls bent from said back wall toward said retainer plate along fold lines generally underlying said edges and then bent outwardly to define coplanar extensions underlying and completely covered by said wings, said extensions being of less dimension than said wings in thedirection of said edges.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
769,770	Phelps	Sept. 13, 1904
1,143,610	Carr	June 22, 1915
1,445,681	Hage	Feb. 20, 1923
2,166,735	Sward	July 18, 1939