Aug. 25, 1936. L. A. MENGES 2,052,053

DOOR HANDLE ESCUTCHEON

Filed April 30, 1934

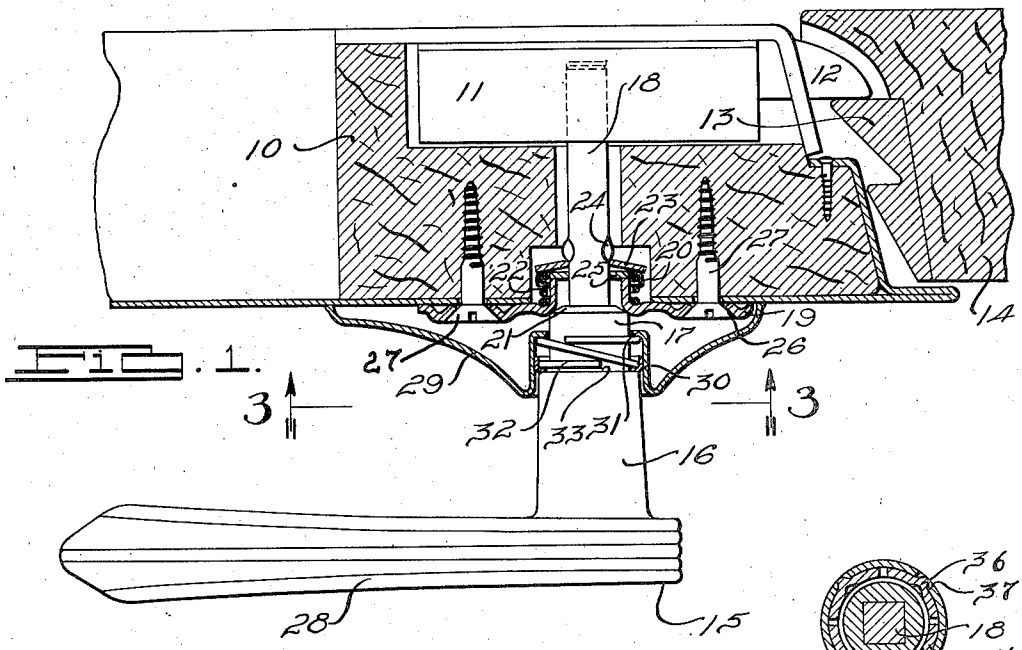


FIG. 1.

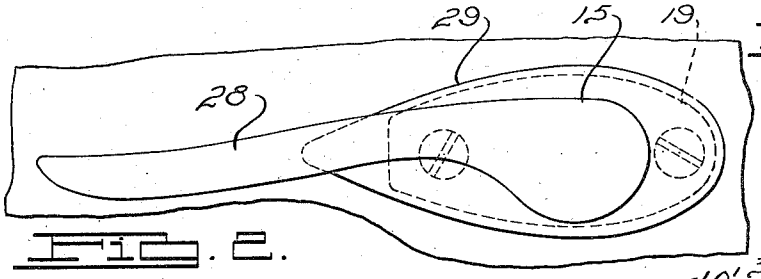


FIG. 2.

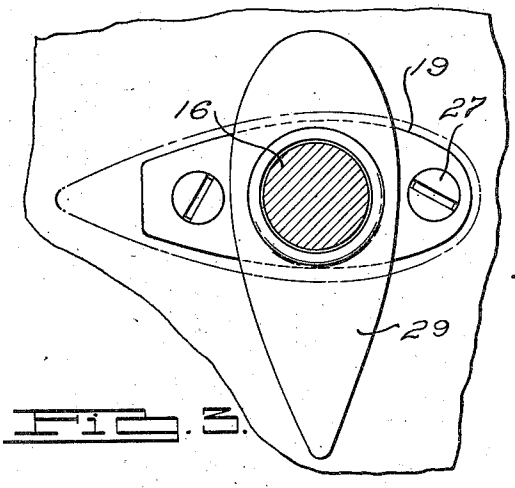


FIG. 3.

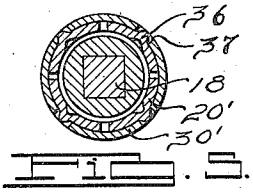


FIG. 5.

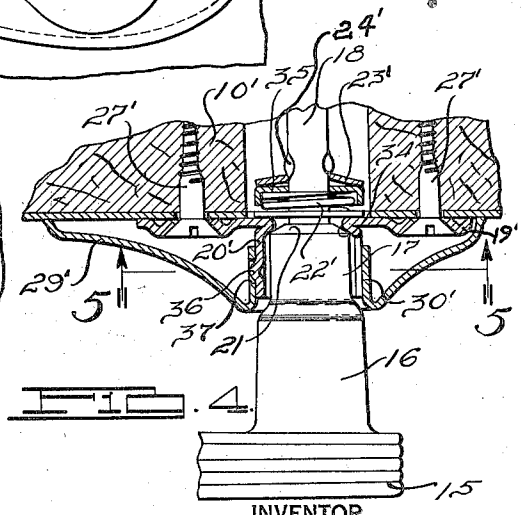


FIG. 4.

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DOOR HANDLE ESCUTCHEON

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11 Claims. (Cl. 292—357)

This invention relates to an improved handle mounting and concealing means therefor.

One of the main objects of the invention is to provide a mounting and concealing means of this character which is particularly adapted for mounting automobile door handles.

Other objects of the invention are to provide an improved handle mounting bracket and a shield therefor which completely conceals the bracket from view; to provide a shield of this character which is rotatably supported and adapted to be conveniently disposed in transversely extending relationship with respect to the normal position for admitting access to the mounting bracket and means by which it is secured to a door structure; to provide means for releasably holding the shield in its normal position and in close fitting relationship with respect to the door structure; to provide a shield of this character which conforms in contour with the mounting bracket and which has a recess for receiving the latter; to provide a mounting bracket and shield assembly in which the shield, when in its normal position, is positively held against turning by the mounting bracket; to provide means for releasably holding the shield against unintended movement from its normal position; to provide means of this character which is also adapted to releasably retain the shield in an unobstructing position while the mounting bracket is being attached to or detached from a supporting structure; and to provide a mounting bracket having means thereon for supporting the shield which is adapted to permit convenient selective movement of the shield into its mounting bracket concealing and exposing positions, respectively.

A still further object of the invention is to provide a factory assembled handle, mounting bracket and shield assembly having parts so constructed and arranged as to facilitate attachment of the assembly to and detachment thereof from a door structure without requiring the removal of any of the parts of the factory assembled unit.

Illustrative embodiments of the invention are shown in the accompanying drawing, in which:

Fig. 1 is a fragmentary, horizontal, sectional view of a door structure and door handle assembly embodying my invention.

Fig. 2 is a side elevational view of a door handle assembly.

Fig. 3 is a vertical sectional view taken on the line III—III of Fig. 1, but showing the shield of the door handle assembly in its mounting bracket exposing position.

Fig. 4 is a fragmentary, horizontal, sectional view of a door handle assembly embodying a further development of my invention.

Fig. 5 is a vertical, sectional view taken on the line V—V of Fig. 4.

In the form of the invention shown in Figs. 1 to 3, inclusive, my improved door handle assembly is illustrated in conjunction with a door **10** having lock bolt operating mechanism, generally designated by the numeral **11**, which is provided with a shiftable lock bolt **12** adapted to releasably engage a striker plate **13** mounted on a door post **14**. This structure is characteristic of the door and latch mechanism employed in automobile bodies and represents only one of many conceivable installations in conjunction with which my improved door handle assembly is adapted to be used.

The door handle assembly includes a handle proper **15** having a cylindrical shank portion **16** provided with a reduced cylindrical hub **17** and a stem **18**, preferably of square cross section, which is receivable in an aperture provided in the lock bolt operating mechanism **11**. Concentrically mounted on the stem **18** of the handle **15** is a mounting bracket **19** having a sleeve **20** bearing at one end against a conical seat **21** formed at the junction of the stem **18** and reduced hub **17** of the shank portion of the handle. The outer extremity of the sleeve **20** is yieldably urged against the conical seat **21** by a coil spring **22** bearing between the mounting bracket **19** and a frusto conical washer **23** mounted on the stem **18** and secured against inward axial movement by crimped ears **24** formed on the corner portions of the stem **18**. The inner end of the sleeve **20** bears upon a flat washer **25** mounted on the stem **18** and abutting the frusto conical washer **23**. Formed in the opposite end portions of the mounting bracket **19** are apertures **26** which receive screws **27** by which the mounting bracket is rigidly fixed to the door structure **10**. The mounting bracket **19** may be formed to any desired contour and is preferably so shaped as to pleasing accord with the contour of the grip lever **28** of the handle. In the form shown in the drawing the mounting bracket **19** is substantially oval in shape and it is normally completely concealed by a correspondingly shaped shield **29** having a hollow interior and adjacent open side in which the mounting bracket is receivable. The shield **29** is provided with an inwardly extending collar **30** having an inwardly extending radial flange **31** thereon surrounding the reduced hub portion of the shank of the handle **15**.

A coil spring 32 is concentrically mounted on the reduced hub portion 17 and bears between the radial flange 31 of the sleeve 30 and a shoulder 33 formed at the junction of the shank portion 16 and its reduced hub part 17. The spring 32 normally yieldably urges the shield 29 toward the door structure 10 from which it may be conveniently displaced by inserting a suitable tool, such as a screw driver, between the shield and the door structure and urging the shield outwardly axially of the shank portion 16 of the handle. When the inner extremity of the shield 29 has been moved out of registration with the mounting bracket 19 by such axial movement of the shield, the latter may be rotated to the position illustrated in Fig. 3, so as to expose those portions of the mounting bracket in which the screws 27 are provided. When the shield 29 is disposed transversely of the mounting bracket 19, as illustrated in Fig. 3, convenient access may be had to the screws 27 or equivalent securing means for the purpose of attaching the door handle assembly to or detaching it from a door structure. The shield may be replaced and its normal mounting bracket concealed from view by merely rotating it from the position illustrated in Fig. 3 and allowing it to be urged into contact with the door structure by the coil spring 32.

All of the parts of the door assembly are permanently retained in their factory assembled relation and it is unnecessary to remove any of the parts thereof from the unit during either mounting of the handle upon a door structure or during removal thereof. The shield 29 eliminates the necessity of plugging the holes in the mounting bracket with lead or similar material in order to cover the screws or other securing means by which the mounting bracket is attached to a door structure.

In the form of my invention illustrated in Figs. 4 and 5 the door handle proper 15 is substantially identical to that shown in Figs. 1 to 3, inclusive, and corresponding portions thereof are designated by numerals identical to those in the description of Figs. 1 to 3, inclusive. In this form of my invention the door handle 15 is rotatably supported by a mounting bracket 19' having a split collar 20' in which the reduced hub portion 17 of the shank 16 of the handle is received. The frusto conical extremity 21 of the reduced hub section 17 bears against a correspondingly shaped seat 34 provided in the inner extremity of the sleeve 20' against which it is yieldably urged by coil spring 22' bearing between the mounting bracket 19' and a spring retaining cup 35 mounted on the squared stem 18 of the handle. The spring retaining cup 35 is held against inward axial movement relative to the stem 18 by crimped ears 24' formed on the corner portions of the stem and which engage a frusto conical washer 23' adjacent the cup 35. A shield 29' is provided for concealing the mounting bracket 19' and the screws 27' by which it is rigidly attached to a door structure 10'. This shield has a hollow interior and an adjacent open end in which the mounting bracket 19' is receivable, and it is provided with an inwardly extending collar 30' which is adapted to fit upon the exterior of the sleeve 20' in telescoping relationship with respect thereto. The collar 30' tightly fits upon the sleeve 20' and is adapted to slightly contract the same to provide a secure grip between these parts of the assembly. Formed in the collar 30' are spaced apertures 37 into which radial projections 36 formed on the sleeve 20' are adapted to extend when the shield is in its mounting bracket concealing position. The apertures 37 and projections 36 serve to releasably hold the shield 29' in its normal position by a snap action, and they permit convenient placement of the shield in a position corresponding to that shown in Fig. 3 by merely shifting the shield axially of the stem portion 16 of the handle until the edges of the open side of the shield clear the outer surface of the mounting bracket 19' and then rotating the shield about the axis of the shank portion 16, the inner periphery of the collar 30' being sufficiently large to accommodate the inner end portion of the shank 16 during axial movement of the shield.

All of the advantages of the previously set forth structure shown in Figs. 1 to 3, inclusive, are obtainable with the structure shown in Figs. 4 and 5, and the parts of the assembly are permanently fixed in their factory assembled relation. In each of the forms of the invention shown the means by which the shield is releasably held in its normal bracket concealing position are completely obscured from view and all assemblies have a uniform appearance which is not dependent upon the skill employed by workmen during mounting of door handles on their supporting structure.

Although but several specific embodiments of my invention are herein shown and described, it will be understood that various changes in the size, shape, and arrangement of parts may be made without departing from the spirit of my invention, and it is not my intention to limit its scope other than by the terms of the appended claims.

I claim:

1. In combination with a door handle and door structure, a bracket for supporting said handle on said door structure, means for securing said bracket to said door structure, a shield of less width than the length of said bracket for concealing said bracket and said securing means, having a recess therein for receiving the same, said shield being normally engageable with said door structure and adapted to be moved into unobstructing relationship with respect to said bracket and securing means for rendering the same accessible, and means for yieldably retaining said shield in engagement with said door structure and in non-rotatable relationship with respect to said bracket, said shield being retractable against the action of said last named means for rendering said securable means accessible when said handle, bracket and shield are in assembled position, said last named means yieldably retaining said shield in retracted position.

2. In combination with a door handle and door structure, a bracket for supporting said handle on said door structure, means for securing said bracket to said door structure, a shield for concealing said bracket and said securing means having a recess therein for receiving the same, said shield being normally engageable with said door structure and adapted to be moved into unobstructing relationship with respect to said bracket and securing means for rendering the same accessible, and a spring bearing between said shield and said handle for urging the former toward said door structure and yieldably retaining said shield in non-rotatable relationship with respect to said bracket.

3. In combination with a handle including a shank portion and an angularly disposed portion, a bracket on said shank portion for mounting said handle on a door structure, means securing said bracket to said door structure and a shield confined on said shank portion between the angularly disposed portion of said handle and said bracket for concealing the latter, said shield being shiftable and rotatable relative to said bracket and adapted to be moved into unobstructing relationship with respect thereto, and means normally holding said shield against displacement from its bracket concealing position, said shield being retractable on said shank portion against the action of said means for rendering said securing means accessible when said handle, bracket and shield are in assembled position, said last named means releasably retaining said shield in retracted position.

4. In combination with a door handle, a mounting bracket for supporting the latter, a movable shield of less width than the length of said bracket enveloping the latter and adapted to be moved to an unobstructing position for exposing longitudinal end portions of said bracket during attachment of said handle to and detachment thereof from a door structure, said bracket and shield having opposed engageable surfaces for normally holding the latter against rotative movement relative to said bracket, and resilient means for yieldably urging said shield toward and holding it in its bracket concealing position, said shield being retractable against the action of said means and adapted to be turned relative to said bracket and releasably held in a position by said means for rendering the longitudinal end portions thereof accessible when said handle, bracket and shield are in assembled position.

5. In combination with a door handle including a shank portion having a shoulder and an angularly disposed portion, a bracket on said shank portion for mounting said handle on a door structure, said bracket having a collar receiving said shank portion and bearing against said shoulder, a shield of less width than the length of said bracket enveloping the latter and adapted to be shifted and rotated relative thereto for exposing longitudinal end portions thereof during attachment of said handle to and detachment thereof from said door structure, said shield having an inwardly projecting collar receiving said shank portion, and means cooperating with the collar of said shield and concealed thereby for releasably holding said shield in its bracket concealing position, said shield being retractable against the action of said means and adapted to be rotated relative to said bracket for rendering the longitudinal end portions of said bracket accessible when said handle, bracket and shield are in assembled position.

6. In combination with a door handle including a shank portion, a mounting bracket for supporting the handle on a door structure having a collar receiving said shank portion, a shield normally concealing the bracket and adapted to be moved to an unobstructing position for exposing the longitudinal ends of said bracket, said shield having a collar receiving said shank, and means cooperating with said last named collar and concealed thereby for releasably holding said shield in its bracket concealing position, said shield being retractable against the action of said means and adapted to be rotated relative to said bracket and releasably held in the latter position by said means for exposing the longitudinal end portions of said bracket.

7. In combination with a door handle including a shank portion, a mounting bracket for supporting the handle on a door structure having a collar receiving said shank portion, a shield normally concealing the bracket and adapted to be moved to an unobstructing position for exposing the longitudinal ends of said bracket, said shield having a collar receiving said shank portion, and a resilient member cooperating with said last named collar and concealed thereby for releasably holding said shield in its bracket concealing position, said shield being retractable against the action of said member and adapted to be rotated relative to said bracket and releasably held in the latter position by said member for exposing the longitudinal end portions of said bracket.

8. In combination with a door handle including a shank portion, a mounting bracket for supporting the handle on a door structure having a collar receiving said shank portion, a shield normally concealing the bracket and adapted to be moved to an unobstructing position for exposing the longitudinal ends of said bracket, said shield having a collar receiving said shank portion, and snap-acting means cooperating with said last named collar and concealed thereby for releasably holding said shield in its bracket concealing position, said shield being retractable against the action of said means and adapted to be rotated relative to said bracket and releasably held in the latter position by said means for exposing the longitudinal end portions of said bracket.

9. In combination with a door handle and door structure, a bracket for mounting said handle on said door structure, a shield normally concealing said bracket, and means for releasably retaining said shield in its bracket concealing position, said shield being retractable against the action of said means and adapted to be moved relative to said bracket to an unobstructed position for exposing portions of the latter, said means releasably retaining said shield in the latter position.

10. In combination with a door handle and door structure, a bracket for mounting said handle on said door structure, a shield normally concealing said bracket, and means including a resilient element for releasably retaining said shield in its bracket concealing position, said shield being retractable against the action of said element and adapted to be moved relative to said bracket to an unobstructed position for exposing portions of the latter, said element releasably retaining said shield in the latter position.

11. In combination with a door handle and door structure, a bracket for mounting said handle on said door structure, a shield normally concealing said bracket, and means including snap-acting cooperating elements for releasably retaining said shield in its bracket concealing position, said shield being retractable against the action of said elements and adapted to be moved relative to said bracket to an unobstructed position for exposing portions of the latter, said elements releasably retaining said shield in the latter position.

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