

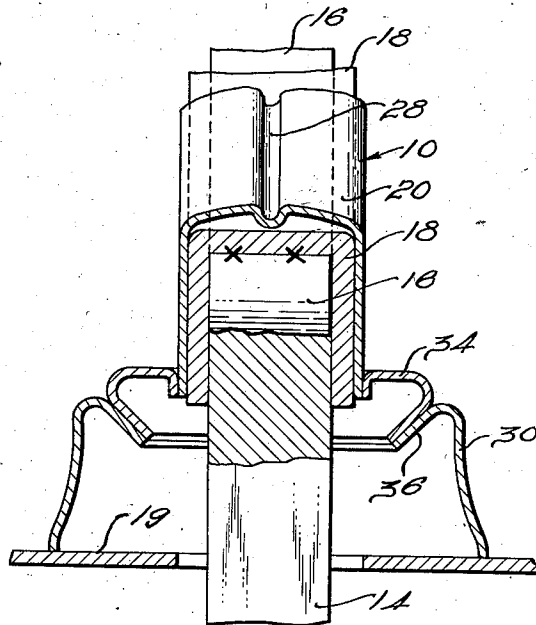
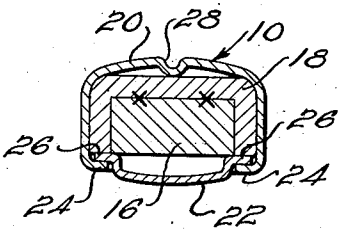
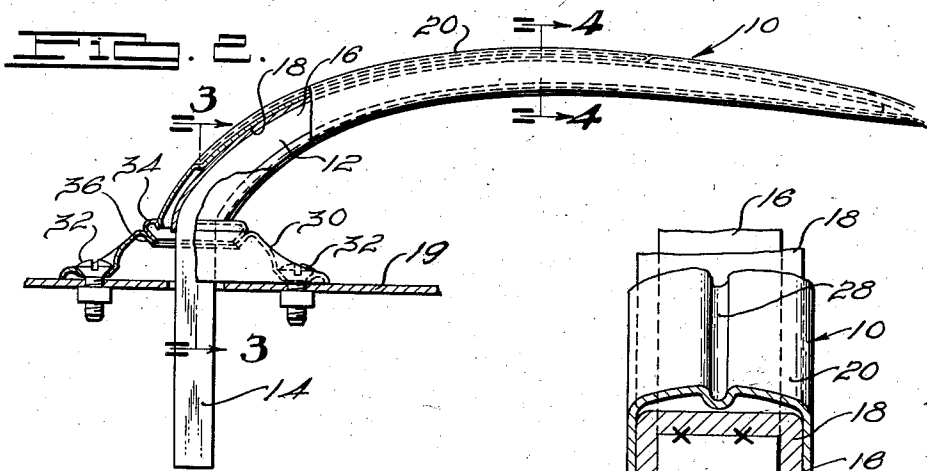
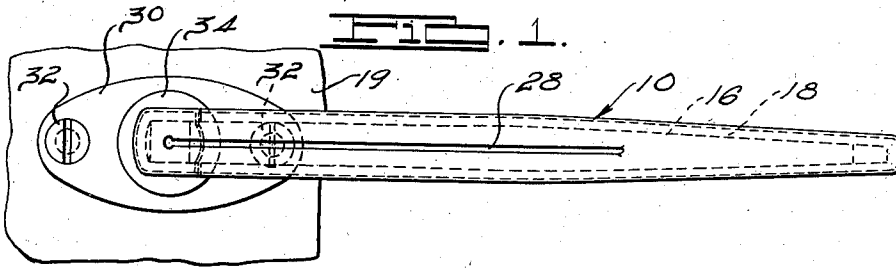
Feb. 28, 1939.

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2,148,993

DOOR LATCH HANDLE

Filed Aug. 15, 1935



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## UNITED STATES PATENT OFFICE

2,148,993

## DOOR LATCH HANDLE

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Application August 15, 1935, Serial No. 36,370

3 Claims. (Cl. 292—347)

The present invention relates to automobile door handles, and a principal object thereof is the provision of a door handle for automobiles or the like which is simple in design, embodies few parts, and may be economically manufactured.

Further objects of the present invention include the provision of a door handle for automobile doors or the like having a single member bent to form a spindle for cooperation with an associated lock and an outwardly extending portion adapted to form a handle for operating the lock; embodying an outwardly extending handle portion formed of a piece of metal of desired section, and having an enlarging and stiffening back secured thereto by welding; embodying an outwardly extending handle portion comprising a core formed integrally and bent from the spindle and having a shell secured to such handle portion; embodying a handle formed of rectangular and tapering metal, an enlarging and stiffening backing member welded thereto, and a shell for enclosing the core and the backing.

It is a further object of the present invention to provide an improved method of manufacturing a door handle having characteristics as above stated.

It is a further object of the present invention to generally simplify and improve the construction of handles for the locks of automobile doors or the like.

With the above and other objects in view, which will become evident in the course of the following description and in the appended claims, an illustrative embodiment is shown in the accompanying drawing, throughout the several views of which corresponding reference characters are used to designate corresponding parts, and in which:

Fig. 1 is a plan view of the improved handle in assembled relation with a door;

Fig. 2 is a view in side elevation corresponding to Fig. 1;

Fig. 3 is a view in vertical section taken along the line 3—3 of Fig. 2; and

Fig. 4 is a view in vertical section taken along the line 4—4 of Fig. 2.

In accordance with the illustrated form of the present invention, and which represents a preferred embodiment of it, the door handle comprises generally a core, to which a backing member is rigidly secured by welding, and an enclosing shell which is preferably formed in two pieces. The core is formed integrally with the door spindle, by bending a straight section of square wire

suitably flattened and trimmed, to provide a straight spindle portion and a curved handle portion. The square form is preferred because such is the shape which the usual door locks now being manufactured and used are constructed to accommodate. As will be evident, the unitary construction of the spindle and handle portion dispenses with the elements customarily used to connect the handle to the spindle and thus substantially simplifies the manufacture and assembly of the unit. The square wire also lends itself readily to bending to any desired shape to accommodate different handle designs, the illustrated design being of the streamline and relatively simple type.

In further accordance with the present invention, the handle portion of the wire or core is preferably enlarged somewhat, as well as stiffened, by welding a single backing member thereto. The welding operation may be effected rapidly and results in a handle of any desired size and rigidity.

The handle is preferably enclosed in two pieces, one of which is a shell of substantially U-shape and encloses three sides of the combined core and backing member, and the other of which is a back shaped to enclose the remaining side. The two are secured together by turning in the marginal edges of the shell over the edges of the back. In accordance with the preferred method of practicing the present invention, the shell and back are suitably polished before they are closed together to form the handle.

The handle assembly is preferably connected to the usual escutcheon plate through a ferrule which fits the end of the shell and back, thus helping to hold the assembly together, and the marginal edges of which are curled under to form a surface that fits into the seat in the escutcheon.

Considering the above mentioned elements in more detail, and referring to the drawing, the improved handle 10 comprises the core 12 which is formed of square wire, suitably bent to form the square spindle portion 14 and the curved portion 16. The spindle portion extends through the illustrative door 19 for cooperation with any suitable type of door lock or other mechanism to be operated by the handle. The bent or handle portion 16 is shaped to conform to any desired external design of the handle and, as illustrated is flat and tapered towards the right hand end thereof, as viewed in Figs. 1 and 2. The backing member 18, illustrated as of U-shape, and which is preferably welded to the portion 16 of core 12, either by spot welding or by a continuous weld,

serves both to stiffen and strengthen the handle and also to enlarge the core 12 from the dimensions suitable for the spindle portion 14 to a size commensurate with the desired outside dimensions of the handle. As illustrated, backing 18 extends throughout substantially the entire length of the handle portion 16 of core 12. It will be noted that, in addition to the formation of backing 18 to channel shape, only two operations are required in forming the combined spindle and handle portion, namely, the bending of the square wire, and the welding of backing 18 thereto.

The handle is enclosed by a shell 20 and a back 22. Shell 20 is of substantially U-shape, and in assembly the marginal edges 24 thereof are bent inwardly and over the corresponding marginal edges 26 of back 22, thus securing the parts together. In the construction illustrated, a groove 28 extends longitudinally of shell 20 throughout a substantial portion of its length, thus forming a rib which stiffens it and also enhances the general external appearance.

The illustrated streamline design of the handle permits the use of automatic polishing and buffing equipment, thus simplifying the manufacture, and as previously mentioned, this buffing and polishing is preferably done before the shell and back are assembled with the core and backing.

The improved handle 10 is secured to the supporting body 19 through the usual escutcheon 30 secured thereto by the countersunk screws 32, and a ferrule 34. Ferrule 34 is pierced and countersunk to fit the end of the shell and back, and support the parts in the assembled relation. The marginal edges of ferrule 34 are turned inwardly to form a circular surface which seats and is rotatable within the corresponding seat 36 of escutcheon 30.

Although a specific embodiment of the present invention has been described, it will be evident that various changes in the form and arrangement of parts may be made within the spirit and scope thereof.

What is claimed is:

1. A door handle comprising a length of stock bent to define a straight spindle portion and an angularly extending handle portion, a backing member secured upon said handle portion for enlarging the same, an enclosing shell secured over said handle and backing portions, and a ferrule for enclosing and supporting said enclosing shell, said ferrule being non-rotative relative to said handle and adapting said handle for rotative mounting upon a supporting body.

2. A door handle comprising a length of stock bent to define a straight spindle portion and an angularly extending handle portion, a backing member secured to said handle portion to enlarge the same, and a two part shell secured over the handle portion and backing member for enclosing the same, said shell including a channel shaped part adapted to embrace said handle portion and backing member, and a strip-like part adapted to fit between the legs of the channel shaped part.

3. A door handle comprising a length of stock bent to define a straight spindle portion and an angularly extending handle portion, a backing element secured upon said handle portion for enlarging the same, an enclosing shell member secured over said handle portion and backing element, and a ferrule member positioned at the end of and non-rotatively connected to the shell member for adapting said handle for rotative mounting upon a supporting body, one of said members being adapted to embrace and support the other member.

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