Nov. 18, 1924. 1,516,303

A. F. LICKTEIG

REGULATOR HANDLE

Filed Feb. 1, 1924

Fig. 1.

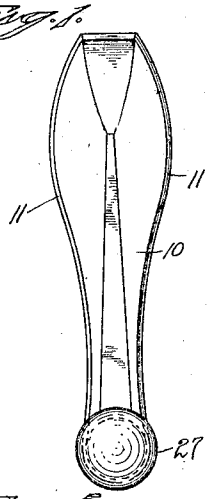


Fig. 2.

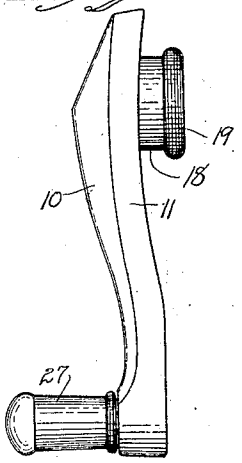


Fig. 3.

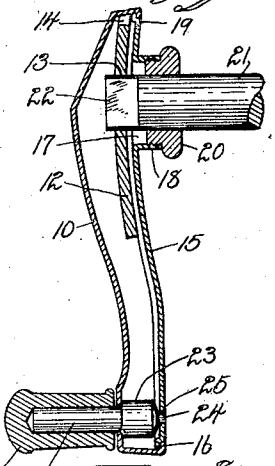


Fig. 5.

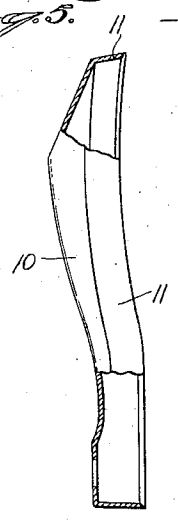


Fig. 6.

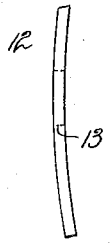


Fig. 7.

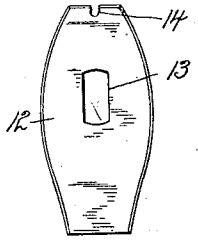


Fig. 8.

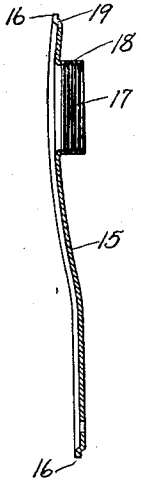
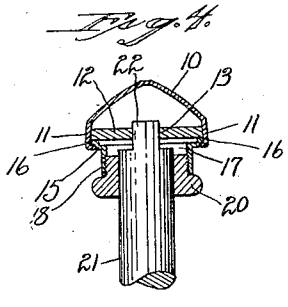


Fig. 4.



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UNITED STATES PATENT OFFICE.

ADAM F. LICKTEIG, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE ENGLISH & MERSICK CO., OF NEW HAVEN, CONNECTICUT, A CORPORATION.

REGULATOR HANDLE.

Application filed February 1, 1924. Serial No. 689,887.

To all whom it may concern:

Be it known that I, ADAM F. LICKTEIG, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Regulator Handles; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Fig. 1 a front view of a regulator handle constructed in accordance with my invention.

Fig. 2 a side view of the same.

Fig. 3 a longitudinal sectional view, showing the handle connected with a spindle.

Fig. 4 a transverse sectional view illustrating the engagement of the handle with a spindle.

Fig. 5 a broken side view of the handle-cap detached.

Fig. 6 a side view of the brace detached.

Fig. 7 a face view of the brace detached.

Fig. 8 a longitudinal sectional view of the backplate detached.

This invention relates to improvement in regulator handles, that is, handles for use in automobiles, and particularly to handles for opening and closing windows, although equally applicable for handles for other purposes. In the usual construction of handles for this purpose, they are formed from cast metal. This involves the expense of patterns, casting and finishing, and with the usual liability of loss from imperfect castings. The object of this invention is to form the regulator handles from sheet-metal, and the invention consists in the construction as hereinafter described and particularly recited in the claims.

In carrying out my invention, I employ a handle-cap 10 of any approved design, struck up from sheet-metal, and including a flange 11. Located within the flange is a brace 12 arranged to closely fit within the inner end of the cap, and formed with an angular bearing-opening 13 and at its inner end with a notch 14 for the purpose as will hereinafter appear. Setting into, so as to close the inner face of the cap, is a backplate 15 having its edge 16 set inward, corresponding to the thickness of the metal of the edge of the cap. This plate is formed near its inner end and in line with the opening 13 in the brace with a round opening 17, around which is a neck 18, and in the inner end of the plate is a notch 19, in line with the notch 14 in the brace. When this backplate is inserted into the handle-cap, the edge of the flange 11 is turned down over the edge of the plate and over the offset edges, so as to form a flush-back for the handle-cap. Secured to the collar 18 is a bushing 20, corresponding in character to the type of operating mechanism with which the handle is to be used, and through this bushing an operating-spindle 21 extends, the end 22 of the spindle being reduced and shaped to correspond to the opening in the brace, so that turning the handle and brace will turn the spindle. The object of forming the notches 14 and 19 is to provide an opening for the drainage of fluid which may enter the handle during the process of electroplating. Within the outer end of the handle is a hub 23, formed at one end with a small bearing 24 which enters a perforation 25 formed for it in the backplate and this hub has a pin 26 extending outward through the cap and onto which is driven a finger-piece 27, which is thus swivelled to the handle-cap and providing a crank-handle, as is usual in devices of this character.

The cap, backplate and brace are all struck up from sheet-metal, and, consequently, can be produced at a low cost for manufacture, and avoids the expense of finishing castings and avoids the loss due to imperfect castings.

I claim:

1. A regulator handle, comprising a cap struck up from sheet-metal, a brace located in the inner end of said cap and formed with an angular opening, a backplate closing the inner face of the handle-cap and provided with an opening in line with the opening in the brace, a collar around said opening, a bushing connected with said collar, and a handle mounted in the outer end of the handle-cap.

2. A regulator handle, comprising a sheet-metal handle-cap, including a flange, a brace located in the inner end of the cap and formed with an angular opening, a back-

plate having its edges set inward and entered within the flange of the handle-cap, the edge of which is turned over onto the edge of the backplate, said backplate formed with an opening in line with the opening in the brace, and with a collar surrounding said brace, a bushing connected with said collar, and a finger-piece swivelly connected with the outer end of the handle-cap.

3. A regulator handle, comprising a sheet-metal handle-cap having a flange, a brace located within the inner end of the cap, a sheet-metal back-piece closing the inner face of the handle-cap, said back-piece formed with an opening in line with the opening in the brace, a collar around said opening, a bushing mounted in said collar, said brace and backplate formed at their inner ends with notches.

4. A regulator handle, comprising a handle-cap struck up from sheet-metal, with a flange, a brace located in said cap at the inner end thereof, a sheet-metal backplate closing the back of the cap, a hub mounted in the outer end of said cap and formed with an outwardly-projecting pin and a finger-piece mounted on said pin.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

ADAM F. LICKTEIG.

Witnesses:

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MAUDE E. TILLMAN.