

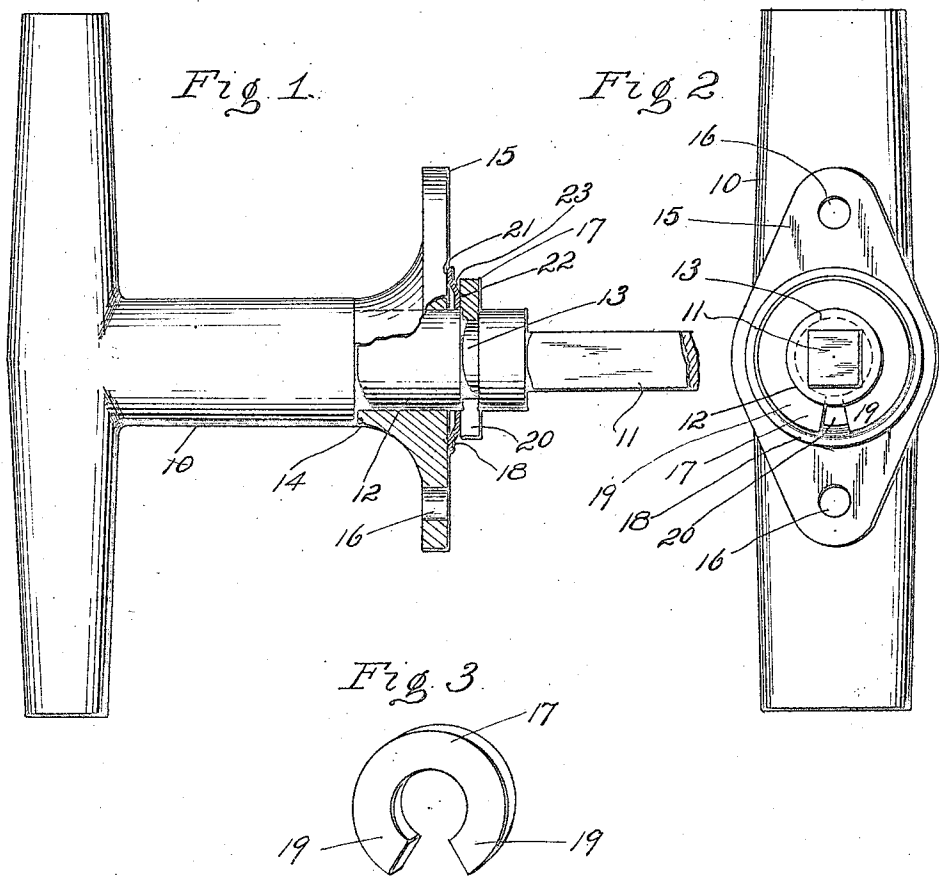
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W. N. RUSSELL.

HANDLE.

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UNITED STATES PATENT OFFICE.

WILLIAM N. RUSSELL, OF NEW HAVEN, CONNECTICUT.

HANDLE.

Application filed October 20, 1920. Serial No. 418,236.

To all whom it may concern:

Be it known that I, WILLIAM N. RUSSELL, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Handles, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in handles referring more particularly to the type of handles used upon doors of motor vehicles.

It is the object of this invention, among other things, to so design and construct the same that the collar associated therewith will permit of a free rotation of the handle therein without endwise movement, to provide a uniform spring tension upon the collar plate, to so design the several parts that they may be economically constructed and assembled to produce a single unitary structure that may be connected to the door with little or no skill.

To these and other ends my invention consists in the handle having certain details of construction and combinations of parts as will be hereinafter described and more particularly pointed out in the claims.

Referring to the drawings in which like numerals of reference designate like parts in the several figures:

Figure 1 is an elevation of my improved handle partly in section;

Figure 2 is an end view thereof; and

Figure 3 is a detail view of the split collar.

In the drawings 10 designates the handle from which projects a shank 11, and having a reduced portion 12 provided with an annular groove 13 therein. Mounted on said reduced portion with one face thereof against the shoulder 14 is the collar plate 15 which is provided with screw holes 16 whereby means are provided for suitably securing the collar plate to a door or similar mechanism.

Within said annular groove is the split collar 17, between which and the rear face of the collar plate 15 is a spring plate 18.

The split collar 17 before it is assembled with the handle (Figure 3), is substantially U shape, the free ends 19 of which are turned inwardly toward each other after the collar has been placed within the annular groove 13 and the same may abut against each other or have an open space 20 therebetween, as shown in Figure 2.

The spring plate 18 as shown has two contact portions 21 and 22, both substantially flat, but occupying different relative planes and joined by an angular portion 23. The plate is preferably positioned so that the smaller contact portion 22 is against one face of the split collar 17 and the contact portion 21 against one face of the collar plate 15, there being sufficient resiliency in the plate to cause these contact portions to exert a slight tension against the parts which they engage, thus providing a uniform pressure that prevents relative endwise movement of the handle within the collar plate 15 but without preventing the rotation thereof.

With a handle as constructed herein, the amount of the machining of the parts is reduced to the absolute minimum, the number of parts is few, and little or no skill is required to assemble them, and when assembled a unitary structure is produced that may be installed with assurance of perfect operation.

What I claim as new and desire to secure by Letters Patent, is:

1. A handle having a shoulder thereon and an annular groove therein, in combination with a collar plate mounted thereon, said collar plate being shorter in length than the space between the shoulder and groove in the handle, a collar within said annular groove and a spring plate between said collar plate and collar having two substantially flat faces, one of which is in contact with said collar plate and the other with said collar.

2. The combination with a handle, of a collar plate rotatably mounted thereon; a collar fixed on said handle against endwise movement at a point thereon that leaves an open space between the collar plate and collar; and a spring plate surrounding said handle and occupying the said open space between said collar plate and collar having two substantially flat faces, one of which is in contact with said collar plate and the other with said collar.

3. In a handle, the combination with a collar plate rotatably mounted thereon: a split collar connected with said handle against endwise movement so as to leave an open space between it and said collar plate; and a spring plate occupying the said open space between said split collar and collar plate, having two substantially flat faces,

one of which is in contact with said collar plate and the other with said collar.

4. A handle having a cylindrical portion, with an annular groove therein and terminating at one end in a shoulder, the combination therewith of a collar plate rotatable upon said cylindrical portion, and shorter in length than so much of said cylindrical portion as is between said shoulder and groove, a collar within said groove, and a yielding member between said collar plate and collar and holding said collar plate against said shoulder with a spring tension, said yielding means having two substantially flat faces, one of which is in contact with said collar plate and the other with said collar. 15

In testimony whereof, I have hereunto affixed my signature.

WILLIAM N. RUSSELL.