Nov. 20, 1928. 1,692,013

H. WILSON

HANDLE CONSTRUCTION

Filed Sept. 4, 1923

Fig. 2.

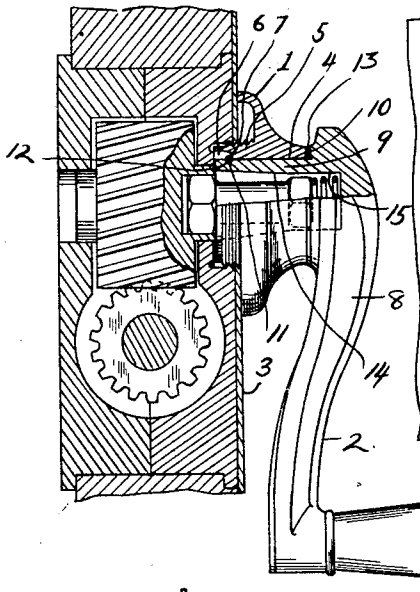


Fig. 1.

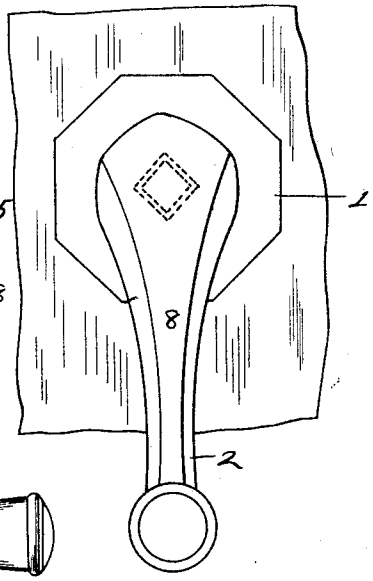
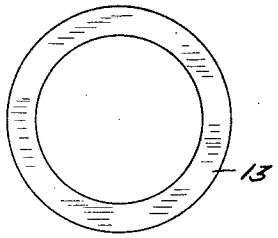


Fig. 3.



Fig. 4



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UNITED STATES PATENT OFFICE.

HERBERT WILSON, OF TOLEDO, OHIO, ASSIGNOR TO THE DURA COMPANY, OF TOLEDO, OHIO, A CORPORATION OF DELAWARE.

HANDLE CONSTRUCTION.

Application filed September 4, 1923 Serial No. 660,869.

The invention relates to handle constructions and is particularly applicable to window control mechanisms of motor vehicles. One of the objects of the invention is the provision of a simple handle construction including an escutcheon and a handle which may be readily assembled and secured as a unit to the motor vehicle. Another object is to provide a handle construction in which yieldable means is provided for normally holding the shank of the handle from end play relative to the escutcheon. A further object is to provide a handle having provision for operative connection to two different types of window control mechanism drives. The invention has in addition to these objects the novel features of construction and combinations and arrangements of parts as more fully hereinafter set forth.

In the drawings:

Figure 1 is a side elevation of a handle construction embodying my invention;

Figure 2 is a sectional elevation thereof at right angles to Figure 1;

Figure 3 is a detail view;

Figure 4 is a side elevation thereof.

1 is the escutcheon and 2 the handle, which together form a unit adapted to be secured to the motor vehicle. The escutcheon has the axial bore 4 therethrough and the concentric nipple 5 at its inner end for threaded engagement with the inner cover 3 of the gear casing of the window control mechanism, this casing being rigidly secured to the door. The nipple 5 has the concentric recess 6 therein forming the annular shoulder 7 upon the escutcheon.

The handle 2 is provided with the arm 8 and the shank 9 extending transversely of and preferably integral with the arm, the shank being journalled in the bore 4 of the escutcheon and having at its outer end the shoulder or abutment 10 and at its inner end the annular groove 11. 12 is a transversely split spring clip insertable within the recess 6 of the escutcheon and into engagement with the annular groove 11, the spring clip being of such a diameter that it partially extends beyond the periphery of the shank to engage the annular shoulder 7 of the escutcheon thereby preventing disengagement of the handle and escutcheon.

For taking up wear and preventing end play between the shank and escutcheon, I have provided the spring washer 13 which, as shown particularly in Figure 3, is a dished annulus. This spring washer surrounds the shank 9 and is located between the outer abutment 10 and the outer end of the escutcheon, thereby normally holding the spring clip 12 which forms the inner abutment against the annular shoulder 7 of the escutcheon.

With the arrangement as thus far described the escutcheon and handle may be assembled to form a unit attachable to a door. Also, by the arrangement, of spring clip at the inner end of the handle shank the escutcheon and handle are prevented from becoming disengaged and at the same time the size of the nipple upon the escutcheon may be kept standard so that the unit may be interchangeable with a different type of handle construction for a different window control mechanism. Furthermore, rattling between the escutcheon and handle is prevented.

Still another feature of my invention resides in the provision of means for operatively connecting the handle to different types of window control mechanism drive in which, in one instance, the drive coupler has a square head with opposite parallel sides, while in another instance the drive coupler has outwardly converging walls and a square cross section. This is accomplished by axially recessing the handle shank 9 from its inner end, the cross section of the recess being square. However, the first portion 14 of the recess has its opposite walls converging from its inner to its outer ends, and the second portion 15 of the recess has its opposite walls extending parallel to each other.

From the above description it will be seen that I have provided a simple construction including a handle and escutcheon which may be assembled as a unit, and then mounted upon a door. Furthermore, by my arrangement for securing the handle to the escutcheon the size of the portion of the escutcheon to be secured to the door may be kept standard, so that my handle construction is interchangeable with others for a different type of window control mechanism. Furthermore, by providing the spring washer between the outer abutment of the handle shank and the escutcheon, wear is provided for and at the same time end play between the shank and escutcheon is prevented, thereby avoiding rattling. Still further it will be seen that by the provision of a recess in the handle shank having a portion with outwardly con-

verging walls and a portion with parallel walls, provision is made for operatively connecting the handle shank to at least two different types of window control mechanism drives.

What I claim as my invention is:

1. The combination with an escutcheon provided with a nipple at its inner end having a concentric recess therein, of a handle having a shank journalled in said escutcheon, said shank having an integral abutment at its outer end and an annular groove in its inner end, a transversely split spring clip insertable within said recess and into said annular groove, and means between said outer abutment and escutcheon for yieldably holding said spring clip against said escutcheon.

2. The combination with an escutcheon having a nipple at its inner end with a concentric recess therein, said recess providing an annular shoulder upon said escutcheon, of a handle having a shank journalled in said escutcheon concentrically of said nipple, a shoulder at the outer end of said shank, an annular groove in the inner end of said shank, a transversely split spring clip insertable within said recess into said annular groove, and a resilient dished annulus surrounding said shank and located between said shoulder and escutcheon for normally holding said spring clip against the shoulder upon said escutcheon.

3. The combination with an escutcheon having a nipple at its inner end with a concentric recess, of a handle, a shank upon said handle journalled in said escutcheon concentrically of said nipple, an inner abutment for said escutcheon insertable within said recess and secured to said shank, and means at the outer end of said escutcheon for yieldably holding said inner abutment and escutcheon, in contact, said shank having an axial recess provided with an inner portion having outwardly converging walls and with an outer portion having parallel walls.

In testimony whereof I affix my signature.

HERBERT WILSON.