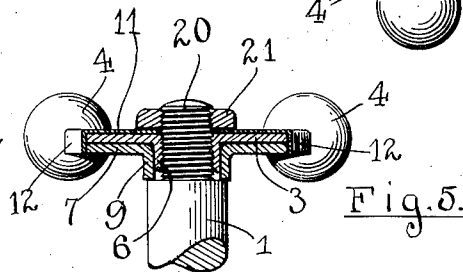
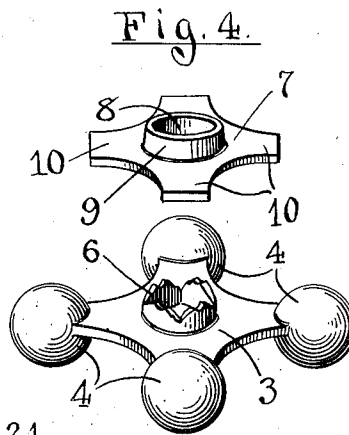
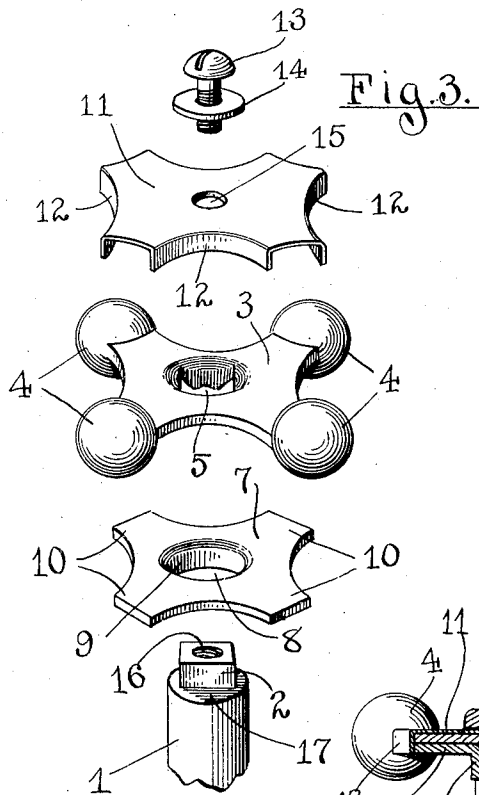
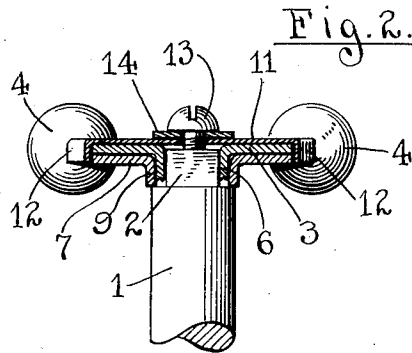
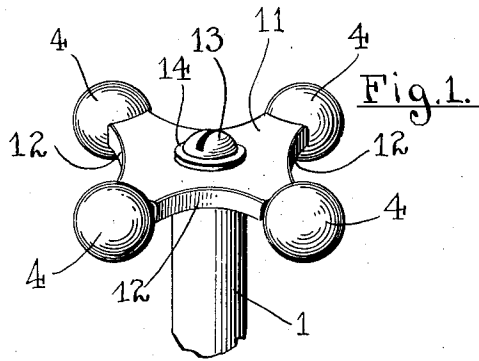


L. A. CORNELIUS.
 ROTARY HANDLE.
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1,100,286.

Patented June 16, 1914.



Witnesses

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UNITED STATES PATENT OFFICE.

LOUIS A. CORNELIUS, OF GRAND RAPIDS, MICHIGAN.

ROTARY HANDLE.

1,100,286.

Specification of Letters Patent.

Patented June 16, 1914.

Application filed May 12, 1913. Serial No. 767,181.

To all whom it may concern:

Be it known that I, LOUIS A. CORNELIUS, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan,—have invented new and useful Improvements in Rotary Handles, of which the following is a specification.

My present invention relates to rotary handles, and its object is to provide a device of that character which may be readily attached to the shaft or rotatable member to be turned thereby; and further, which when so attached, will be durably fixed in non-rotative relation thereto; and further, which shall be economical in construction and which shall nevertheless present a neat and well-finished appearance; and further, which shall be variously improved as hereinafter set forth. These objects are attained by, and my invention finds a preferable embodiment in, the structure hereinafter described and illustrated by the accompanying drawings, in which:—

Figure 1 is a view in perspective of my handle applied to its rotatable shaft; Fig. 2 is a vertical axial section of said handle, thus applied; Fig. 3 is a view in perspective of the various members of my handle, together with such shaft, shown disassembled and in relative position for assembling; Fig. 4 is a like view of two of said members in reverse position: and Fig. 5 is a view similar to Fig. 2, but illustrating a variant construction.

My handle is specially adapted for use in connection with faucets having a rotatable shaft 1 with squared end 2 to which the handle is applied, as shown. The handle body 3 is preferably of the ordinary type having a plurality—four in the construction shown—of spherical projections 4 adapted to be grasped by the hand to turn the handle. This handle body is centrally provided with a square orifice 5 therethrough adapted to tightly fit on the squared end of the shaft. Such orifice is formed (as by a suitable cutting and forming die) in such manner as to provide a downwardly-extending annular extension 6 whose wall is shaped interiorly to tightly fit the shaft's end 2, and is cylindrical exteriorly as shown. A reinforcing member 7 is applied to the under side of the handle body 3 and is provided with an orifice 8 therethrough adapted to tightly fit around the cylindrical extension 6 to reinforce such extension, thus to prevent its dis-

tortion by the stress of the device's operation. To further this end, the member 7 has preferably a downwardly-extending flange 9 the interior surface of whose wall is an extension of the wall of the orifice 8. This member 7 has preferably lateral extensions 10,—as many as there are projections 4,—adapted to engage such projections to prevent the rotation of said member 7 relatively to the handle body 3; and the portions of the periphery of such member 7 between the projections 4 conform to that of the handle body 3 between such projections. A top finishing member 11 is preferably provided, and is applied to the upper side of the handle body 3. It fits between the projections 4, and its periphery between such projections is formed into downwardly-extending flanges 12 adapted to tightly engage the peripheries of both the handle body 3 and reinforcing member 7, thus concealing their meeting line and further insuring their rigid connection and relative non-rotation.

The members are assembled and attached to the shaft in the following manner. The reinforcing member 7 is pressed into position on the under side of the handle-body 3, its extensions 10 engaging the projections 4 and its orifice 8 receiving and tightly holding the cylindrical extension 6. The top finishing member 11 is then placed in position, its flanges 12 engaging the peripheries of the handle body 3 and member 7. The assembled handle is now placed on the faucet shaft 1, its squared end 2 being inserted into the orifice 5. A suitable screw 13 (having preferably a washer 14) being inserted through the orifice 15, in the member 11 and turned into the threaded orifice 16 in the end of the shaft 1, all the members of my handle are thereby pressed together and securely held on such shaft. To effect the close engagement of these members together by the screw's pressure, the cylindrical extension 6 should not descend as low as the end of the flange 9 which rests on the shaft's shoulder 17.

It is manifest that the construction shown and described may be varied without departing from my invention, for instance, the end of the shaft and the engaging portion of the handle body may be variously shaped to prevent relative rotation. The end of the shaft may be screw-threaded as shown at 20 in the construction illustrated in Fig. 5, and the orifice through the handle body may be

threaded to turn thereon, all the parts being
securely fastened together as by a jam nut
21. It will be seen that by this construction
also the handle and shaft are held in non-
5 rotatable relation.

Not confining myself to details of construction shown or described, I claim:—

1. In a device of the character described,
a shaft having a squared end, a handle body
10 having an annular extension interiorly
squared to fit the shaft's end, a reinforcing
member surrounding the annular extension,
a finishing member having flanges adapted
to receive a portion of the peripheries of
15 the handle body and of the reinforcing member,
and means for fastening all the parts
thus assembled together.

2. In a device of the character described,
a shaft having a squared end, a handle body
20 having an annular extension interiorly
squared to fit the shaft's end, a reinforcing
member having an annular flange
surrounding said annular extension, a finishing
member having flanges adapted to receive
25 a portion of the peripheries of the handle
body and of the reinforcing member, and
means for fastening all the parts thus assembled
together.

3. In a device of the character described, a
shaft, a handle body in non-rotatable relation
to the shaft and having an annular extension
interiorly shaped to fit the shaft's end, a
reinforcing member surrounding the annular
extension, a finishing member having flanges
adapted to receive a portion of the peripheries
35 of the handle body and of the reinforcing member,
and means for fastening all the parts thus
assembled together.

4. In a device of the character described, a
shaft, a handle body in non-rotatable relation
40 to the shaft and having an annular extension
interiorly shaped to fit the shaft's end, a
reinforcing member having an annular flange
surrounding said annular extension, a finishing
member having flanges adapted to receive a
portion of the peripheries of the handle body
and of the reinforcing member, and means for
fastening all the parts thus assembled together.

In testimony whereof I have hereunto set
my hand in presence of two subscribing witnesses.

LOUIS A. CORNELIUS.

Witnesses:

C. EVAN JOHNSON,
W. S. PROUDFIT.