

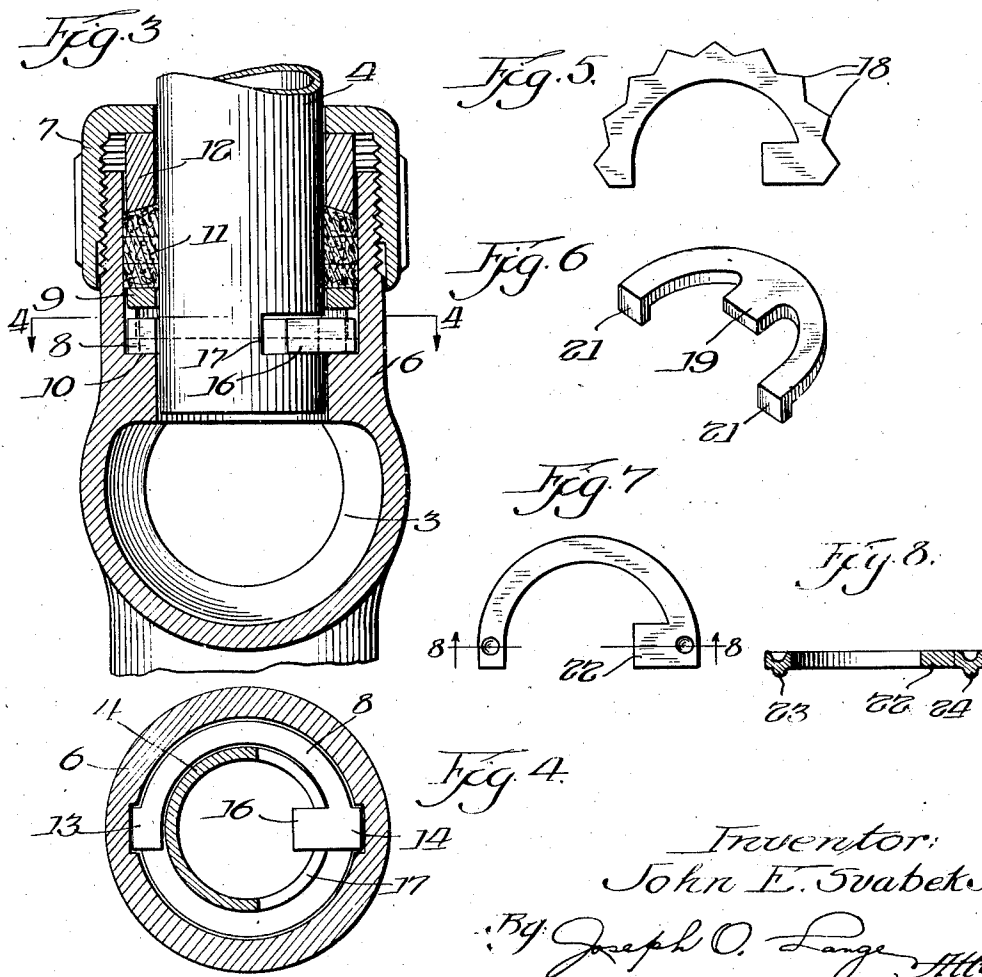
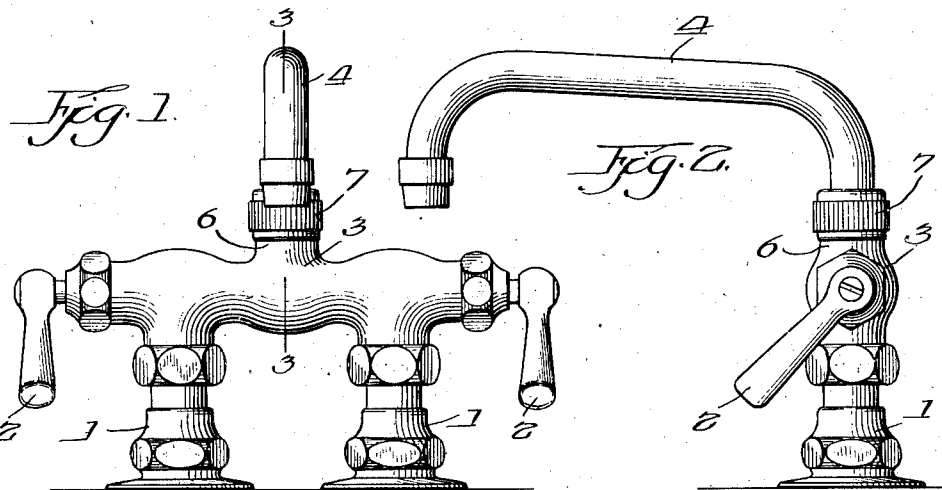
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SWINGING SPOUT FOR FAUCETS

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SWINGING SPOUT FOR FAUCETS

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5 Claims. (Cl. 285—97.3)

This invention relates to a new and improved swinging spout for faucets or the like and has for one of its principal objects the provision of novel means for effecting a stop in either direc-
tion of the swinging spout mounting. Specifi-
cally, a locking member is preferably employed
which performs two functions, namely (1) that
of locking the spout against longitudinal move-
ment in the mounting, and (2) that of limiting
the arcuate movement of the swing spout to
thereby prevent the accidental discharge of water
outside the sink.

An important object of this invention is to pro-
vide a locking ring for swinging or rotatable
spouts which is enclosed within the spout mount-
ing and preferably positioned below the packing,
whereby leakage is effectually prevented. Here-
tofore, in the prior conventional constructions
employing a set screw to limit the amount of ro-
tation of a swinging spout, leakage past the joint
has been a serious problem.

Another important object of this invention is to
provide a C-form or semi-circular locking ring
for swinging spouts which is simple and economi-
cal to manufacture, and relatively easy to assem-
ble.

Other and further important objects will be-
come apparent from the disclosures in the fol-
lowing specification and accompanying drawing,
in which

Fig. 1 shows a front view of a dual faucet as-
sembly having a swinging spout employing my
invention.

Fig. 2 is a side elevation of the faucet assembly
shown in Fig. 1.

Fig. 3 is an enlarged sectional view taken on
the line 3—3 of Fig. 1 and shows the rotatable
or swinging spout mounting of this invention.

Fig. 4 is a sectional view taken on the line 4—4
of Fig. 3.

Figs. 5, 6 and 7 show modified forms of lock-
ing members within the terms of this invention.

Fig. 8 is a sectional view taken on the line 8—8
of Fig. 7.

As shown in the drawing: The reference num-
eral 1 indicates generally a dual faucet or the
like having operating handles 2, an outlet 3, and a
tubular swinging spout 4 rotatably mounted
thereon, as indicated. As best shown in Fig. 3,
the spout 4 has a mounting therefor consisting
essentially of a housing 6 having a central recess
and a shoulder 10 at the lowermost portion upon
which the novel locking member 8 is supported.
The housing 6 may be an integral part of the
faucet body as it is shown, or may be made as

a separate part. Means of attachment such as a
bolted flange may be used or it may be screwed
on or connected by a union ring, as presently in-
dicated. The washer 9 is placed over the locking
member 8 and resiliently held down by the pack-
ing member 11, with the gland 12 and the gland nut 7
threadedly engaging the housing, as indicated.

The locking member 8, as best shown in Fig. 4,
is semi-circular in shape and in a preferred form
is made with diametrically opposed projections 13
and 14 which fit into oppositely aligned vertical
grooves in the housing 6. As shown more clear-
ly in Fig. 3, these grooves extend upwardly within
the housing 6 a short distance from the shoulder
10. Immediately opposite the outwardly extend-
ing projection 14, as shown in Fig. 4, the projec-
tion 16 extends inwardly into the annular slot 17
cut in the lower peripheral portion of the wall of
the spout proper 4. As shown in Fig. 4, it will
be seen that the annular slot 17 in the spout 4
is slightly less than a semi-circular segment.
As evidenced in Fig. 3, the thickness of the slot
17 is greater than the thickness of the locking
ring 8 and its inward projection 16. The size of
this segment 17 designated as being substantially
semi-circular may, of course, be any size segment
of a circle depending on the particular applica-
tion with which it is employed.

It will now be apparent that the locking ring
performs the functions of preventing the spout
from being withdrawn from its mounting, and of
limiting the rotation of the spout by means of
the inwardly extending projection 16 of the lock-
ing member 8. With the packing 11, the gland 12
and the gland nut 7 positioned above the locking
member 8 it is impossible for the latter member
to be withdrawn thereby making it impossible for
the spout to be withdrawn unless these latter de-
scribed elements are first removed. It is appar-
ent that by the inward projection 16 acting
against the ends or limiting edges of the slot 17
in the spout 4 the limits of rotational movement
of the spout or rotatable member are established.
When the spout is rotated in one direction it will
be permitted to rotate until the edge of the slot 17
strikes the projection 16 causing it to stop. Like-
wise, when the spout is rotated in the opposite
direction, the opposite edge of the slot 17 will
strike the projection 16 and cause the spout to
stop its rotation.

It is clear therefore that if the locking member
8 were permitted to rotate the spout would like-
wise be permitted to rotate without limitation
and thus the inward projection 16 would be of
no use. Therefore, the outwardly extending pro-

jections 13 and 14 are nested within the slots in the housing 6 and prevent rotation of the locking member. It is obvious, however, that the projections 13 and 14 on the member 8 could be made a part of the housing 6 and the member 8 would then be slotted to receive such projections; in this way the same result of having a non-turning locking member would be accomplished.

The advantage of having a spout with a limited swing is quite obvious when it is seen that the faucets are generally mounted at the rear of a kitchen sink or the like, and if the spout should swing entirely around part of its swing might position the discharge spout at a location other than over the sink basin proper with resultant damage to floors, walls and ceilings. It has been common practice, heretofore, to employ a set screw in place of the locking member in order to limit the rotational movement of the spout. However, the tapping of the housing 6 for the presently used set screw has been objectionable inasmuch as leakage occurs at this point. The advantage lies in that the locking member 8 being superposed respectively by the washer 9, the stuffing box packing 11, and the combined stuffing nut 7 and gland 12 makes it virtually impossible for fluid to leak therepast such as is the case when the conventional set screw is used as just described.

It will be evident that the locking member shown as semi-circular may also be made as a part of a circular section and as used in its preferred form has an inward projection and, in addition, outer annular means such as the projections 13 and 14 for preventing its rotational movement. However, it is readily foreseeable that the projections 13 and 14 may assume a variety of different forms such as grooves or the modifications of projections, etc. shown in Figs. 5, 6 and 7. Fig. 5 shows a novel type employing numerous angular projections 18 which are adapted to bite or fit snugly and non-rotatably into the recessed portion of the casing 6. Fig. 6 shows an inward projection 19 similar to the inward projection 16 of the member 8. However, in this locking member there is no outward projection but rather downward extensions 21 adapted to be recessed in similarly shaped sockets in the shoulder 10 of the housing 6 and in this manner inhibit rotation of the C-shaped locking ring. The ring shown in Fig. 7 is similar to the semi-circular ring 8 in that it has an inward projection 22 similar to the projection 16 on ring 8. However, in this construction the projections on the ring shown in Figs. 5 and 6 are omitted, and instead, semi-spherical projections 23 and 24 are preferably punched (or they may be cast or otherwise formed) on the underside of the ring, as indicated. In this construction the shoulder 10 of the housing 6 is of necessity provided with semi-spherical depressions or holes to engage the projections 23 and 24 in order that no rotational movement of the locking ring will take place.

Thus it is apparent that numerous details of the construction may be varied throughout a wide range without departing from the principles disclosed by this invention, and I, therefore, do not propose limiting the invention otherwise than as necessitated by the prior art as viewed in light of the appended claims.

I claim:

1. A swing type of mounting having limited

rotatability comprising, in combination, a housing, a limitedly rotatable member journaled within the said housing, a substantially semi-circular locking member peripherally engaging an interior surface portion of the said housing and non-rotatably engaging the said rotatable member, projecting means on the said locking member to engage a recessed portion of the said rotatable member at predetermined positions thereof whereby rotation of the said rotatable member beyond the end limits of the recessed portion of the said rotatable member is prevented.

2. A rotatable mounting comprising a housing, a spout therefor, a C-shaped locking ring supported non-rotatably within the said housing and engaging a slotted portion of the said spout to limit the rotation of the latter member, the said housing having grooves therein engageable by external projections on the said locking ring, means in the said housing whereby the said locking ring is maintained non-rotatably within the said housing and restrained against substantial axial movement.

3. A mounting for a swinging spout or the like comprising, in combination, a casing having a central port therethrough, a shoulder portion in the said casing port, a spout journaled within the port of the said casing, the said spout having an annular, substantially semi-circumferential aperture, a segmented locking ring surrounding the said spout and positioned on the shoulder portion in the casing, a projection on the said locking ring engaging the aperture in the said spout whereby spout rotation is limited to the circumferential span of the aperture, joint means associated with the shoulder portion of the casing for preventing rotation of the said locking ring and holding the latter member against substantial longitudinal movement.

4. A mounting for a rotatable spout or the like comprising a casing having a port therethrough, a spout journaled within the port of the said casing and having a substantially annularly extending aperture at its lower portion, a substantially semi-circular locking member surrounding the said spout and supported within a shoulder portion of the port within the said casing, an inward projection on the said locking member engaging the aperture in the said spout, means for preventing rotation of the said locking member, said means comprising downwardly extending projections on the said member whereby the said locking member projections cooperate with the said casing to prevent rotation of the said locking member.

5. A mounting for a swinging spout or the like comprising a casing having a port therethrough, a spout journaled within the port of the said casing having a substantially semi-circular aperture, a semi-circular locking ring around the said spout, a projection on the said locking ring engaging the aperture in the said spout whereby rotation of the spout is limited to the span of the aperture in the said spout, means for preventing rotation of the said locking ring, the said means comprising vertically extending means on the said casing, the said locking ring having complementary vertically extending means whereby when the respective latter means of the said casing and the said locking ring are in engagement, rotation of the said locking ring is prevented.

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