

H. P. JULIUS.
FAUCET.

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995,016.

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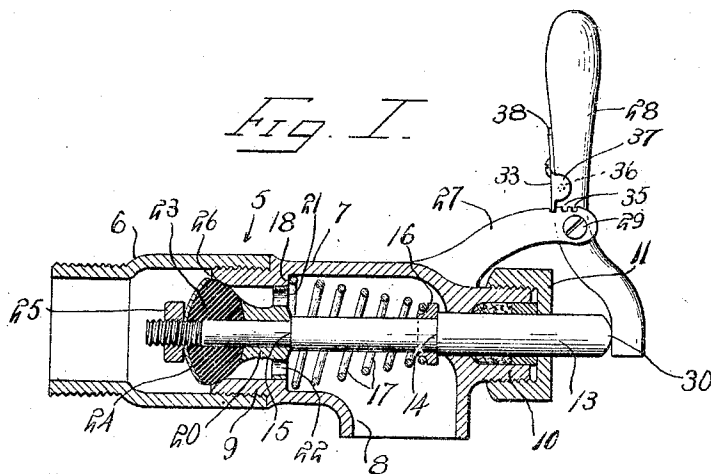
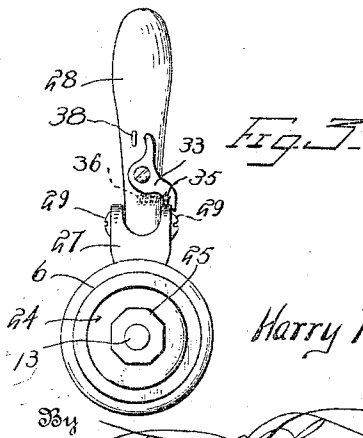
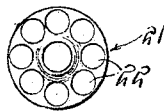


Fig. 2.



Witnesses

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FAUCET.

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To all whom it may concern:

Be it known that I, HARRY P. JULIUS, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Faucets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to a faucet and more particularly to the class of self closing faucets.

The primary object of the invention is the provision of a faucet in which the closing plug or valve thereof will be properly guided to its seat so as to interrupt the flow of water and to avoid all possibility of the faucet leaking that would otherwise necessarily result in the constant use thereof, the faucet being adapted for use on ice water coolers or in water pipe systems and in fact for many other purposes.

Another object of the invention is the provision of a faucet of this character in which the valve casing is constructed of separable sections thereby enabling the interior parts of the faucet to be readily and quickly accessible for proper adjustment or to enable repairs to be made thereto should the occasion require.

A further object of the invention is the provision of a faucet in which the spring member held within the valve casing has its ends resting against bearings that will maintain the spring properly seated within the shell for effecting the automatic closing of the valve or plug to shut off the water supply through the faucet, the spring being so disposed as to permit the water to issue therethrough when being discharged from the faucet.

In the drawings accompanying and forming part of this specification is illustrated the preferred forms of embodiment of the invention, which to enable those skilled in the art to carry the same into practice will be set forth at length in the following description while the novelty of the invention will be pointed out in the claims hereunto appended.

It is of course to be understood that minor changes, variations and modifications may be resorted to such as come properly within the scope of the appended claims without departing from the spirit of

the invention or sacrificing any of its advantages.

In the drawings:—Figure 1 is a vertical longitudinal sectional view through a faucet constructed in accordance with the invention. Fig. 2 is a plan view of the guide hub and its circular head detached from the valve stem. Fig. 3 is a rear end view of the faucet shown in Fig. 1.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings by numerals 5 designates generally a faucet comprising a shell or casing formed of independent separable cylindrical sections 6 and 7 the latter section being provided with a discharge spout or nozzle 8 depending therefrom at substantially right angles thereto. This section 7 is formed at its inner end with a reduced externally threaded nipple 9 detachably engaging with the internally threaded outer end of the section 6 whereby both of said sections may be separated or detached from each other when required. The outer end of the section 7 is formed with an externally threaded nipple 10 with which is detachably engaged an internally threaded cap 11, the nipple 10 forming a packing gland or chamber 12 for a purpose as will be hereinafter more fully described.

Passed centrally through the packing gland 12 is a plunger rod 13 the outer end of which protrudes a distance exteriorly of the cap 11 while its inner end portion is formed with circular annular shoulders 14 and 15, the same being formed by circumferentially reducing the inner end of the said stem or rod 13 in a step by step manner and bearing against the shoulder 14 and surrounding the said stem or rod 13 is a bearing washer 16 against which bears one end of a tapered helically arranged expansion spring 17 the other end of which has its bearing against a shoulder 18 formed in and spaced from the inner end of the outer sections 7 of the casing.

Surrounding the stem or rod 13 and bearing against the shoulder 15 is a guide sleeve or hub 20 formed with a disk head 21 containing a series of orifices 22 formed circumferentially therein relative to the stem, the peripheral edge of the circular head 21 slidable on the wall of the bore in the reduced end 9 of the section 7 establishing communication between it and the section

6 of the casing. Rearwardly of the hub or
guide sleeve 20 surrounding the stem or
rod 13 and bearing against the adjacent face
of the said hub is a resilient or rubber ball
5 valve 23 the latter being compressed by a
metal washer 24 acted upon by an adjust-
able binding nut 25 threaded on the inner
end of the stem or rod 13, the ball valve 23
being normally engaged in its seat 26 formed
10 by the beveled inner end edge of the re-
duced portion 9 of the section 7 by reason
of the tension of the spring 17 therein. It
will be noted that this spring 17 serves to
automatically close the faucet so that it may
15 be termed a self closing faucet.

Rising from the upper side of the sec-
tion 7 is an upwardly and outwardly
curved arm 27 which is integral therewith,
the outer end of the arm being bifurcated in
20 which is fitted a hand operated pull cam
lever 28, the same being connected to the
arm by a pivot 23, the lower end of the arm
engaging against the rounded outer end 30
of the stem or rod 13 so that upon for-
25 wardly rocking the lever 28 the valve stem
or rod will be forced inwardly in the casing
5 to unseat the ball valve 23 against the re-
sistance of the spring 17 thereby permitting
water to flow freely through and from the
30 faucet until pressure has been released upon
the cam lever whence the valve 23 will
again become seated by action of the spring
for positively closing the faucet to shut off
the supply of water throughout.

35 The lever 28 has pivoted thereto a lock-
ing dog 33 the latter being normally held
out of engagement with a toothed segment
35 formed on the arm 27 by means of an
expansion spring 36 fitted within a suitable
40 counterbore in one side of the lever and
working against a right angularly bent off-
set portion or ear 37 of the said locking dog.
This ear 37 is engaged by the finger of an
operator and on pressing inwardly toward
45 the lever 28 the locking dog will be brought
into engagement between a pair of teeth of
the segment 35 after the valve 28 has been
moved to open the valve and by the action
of the spring 17 within the shell or casing
50 of the faucet the locking dog will friction-
ally bind against one of the teeth between
the pair with which it is inserted and lock
the lever against movement by the resist-
ance of the said expansion spring 17 within
55 the casing of the faucet. It will be obvious
that the lever 28 can be held adjusted so as
to maintain the valve in opened position
and spaced at any degree within the limit
of movement of the stem 13 from the seat
60 26 of the said valve thus regulating the flow
of water through the faucet. To release the

locking dog 37 it is only necessary to place
the lever in a direction against the resistance
of the spring 17 so as to relieve the said
locking dog 37 of its frictionally bending 65
action against one of the teeth of the seg-
ment 35 with which it is engaged and the
said dog 37 will be automatically thrown
out of the path of said segment by the
action of the expansion spring 36 so that 70
on releasing the said lever 28 the ball valve
23 will automatically travel to its seat in the
faucet casing.

Projecting from the lever 28 in the path
of movement of the upper end of the lock- 75
ing dog 33 is a stop 38 which limits the
swinging movement of the said dog 33 to
its releasing position.

What is claimed is:—

1. In a faucet, a casing having an arm 80
projecting therefrom and provided with a
toothed segment, a plunger rod operating in
the casing and having a valve, one end of
said plunger projecting from the same end
of the casing as said arm, a spring to nor- 85
mally close said valve, a lever mounted on
said arm and engaging said plunger rod,
to open the valve and a dog carried by said
lever and coacting with said segment to hold
the valve open. 90

2. A faucet comprising a casing having a
valve seat, a valve movable on the seat, a
valve rod engaging the valve, a lever for
operating the valve rod, a support on the
casing having a rack and pivotally support- 95
ing the lever, and a clutch dog pivoted to
the lever to transversely engage the rack
on the support.

3. A faucet comprising a casing having a
valve seat, a valve movable on the seat, a 100
valve rod engaging the valve, a lever for op-
erating the valve rod, a support on the casing
having a rack and pivotally supporting the
lever, and a clutch dog pivoted to the lever
to transversely engage the rack and having 105
a stop to limit its movement.

4. A faucet comprising a casing having a
valve seat, a valve movable on the seat, a
valve rod engaging the valve, a lever for op-
erating the valve rod, a support on the casing 110
having a rack for pivotally supporting the
lever, and a clutch dog pivoted to the lever
to transversely engage the rack on the sup-
port and formed with a lateral stop to en-
gage the lever. 115

In testimony whereof, I affix my signature,
in presence of two witnesses.

HARRY P. JULIUS.

Witnesses:

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