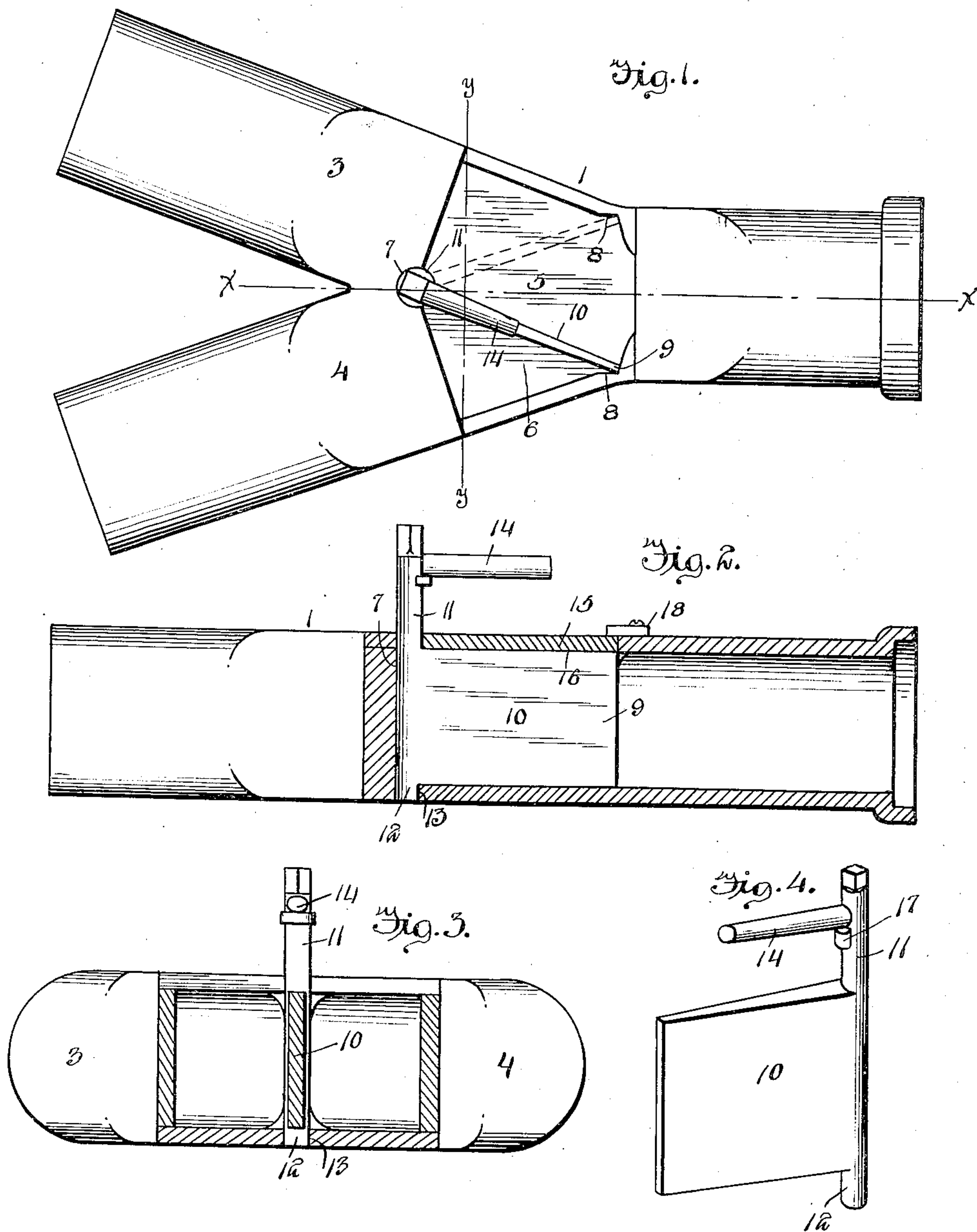


W. B. STURGIS.
WATER SWITCH.
APPLICATION FILED MAY 22, 1908.

925,053.

Patented June 15, 1909.
2 SHEETS—SHEET 1.



Inventor
WILLIAM B. STURGIS,

Witnesses
G. M. Spring.
C. B. Benjamin.

By

David D. Moore.
His Attorney

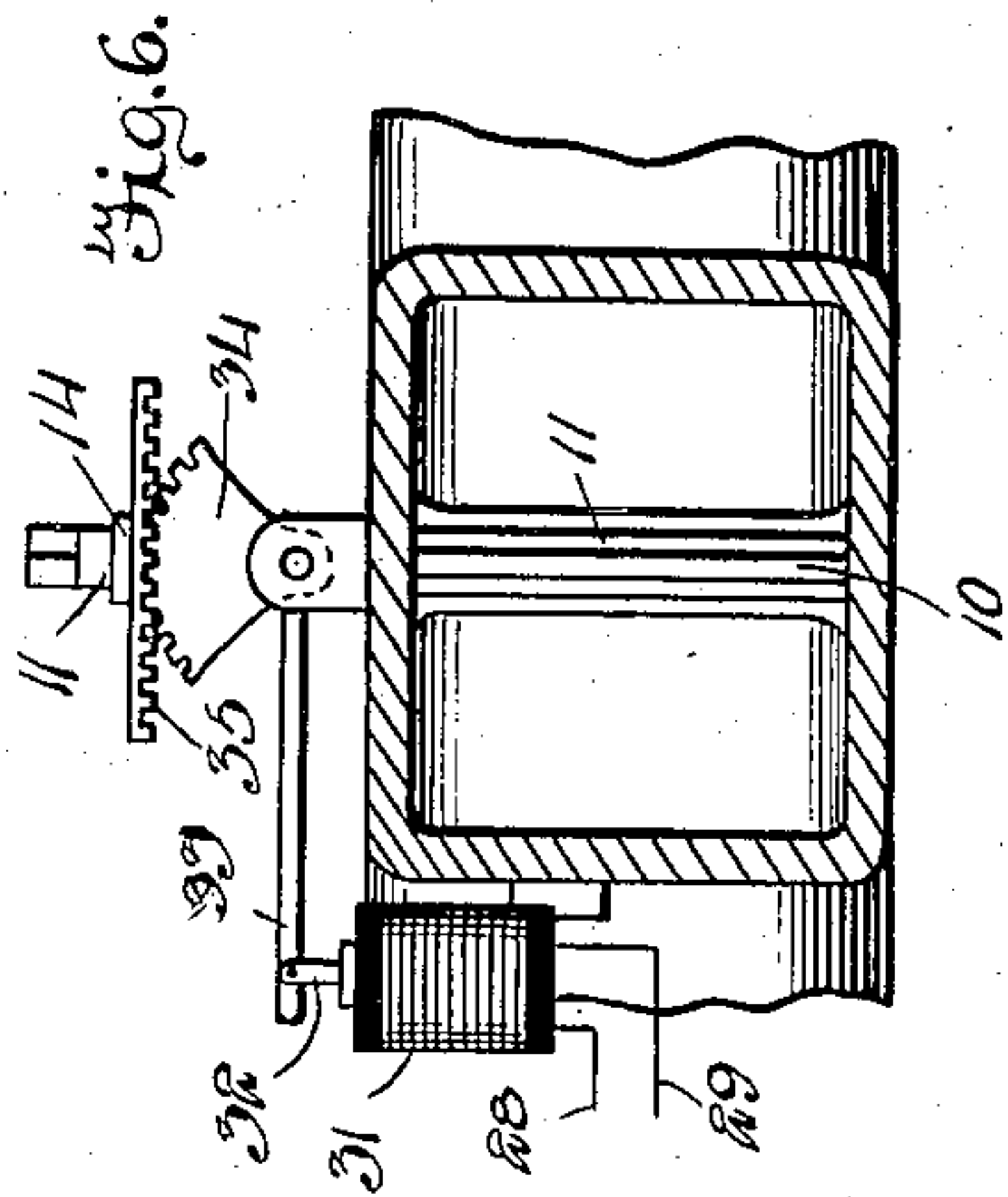
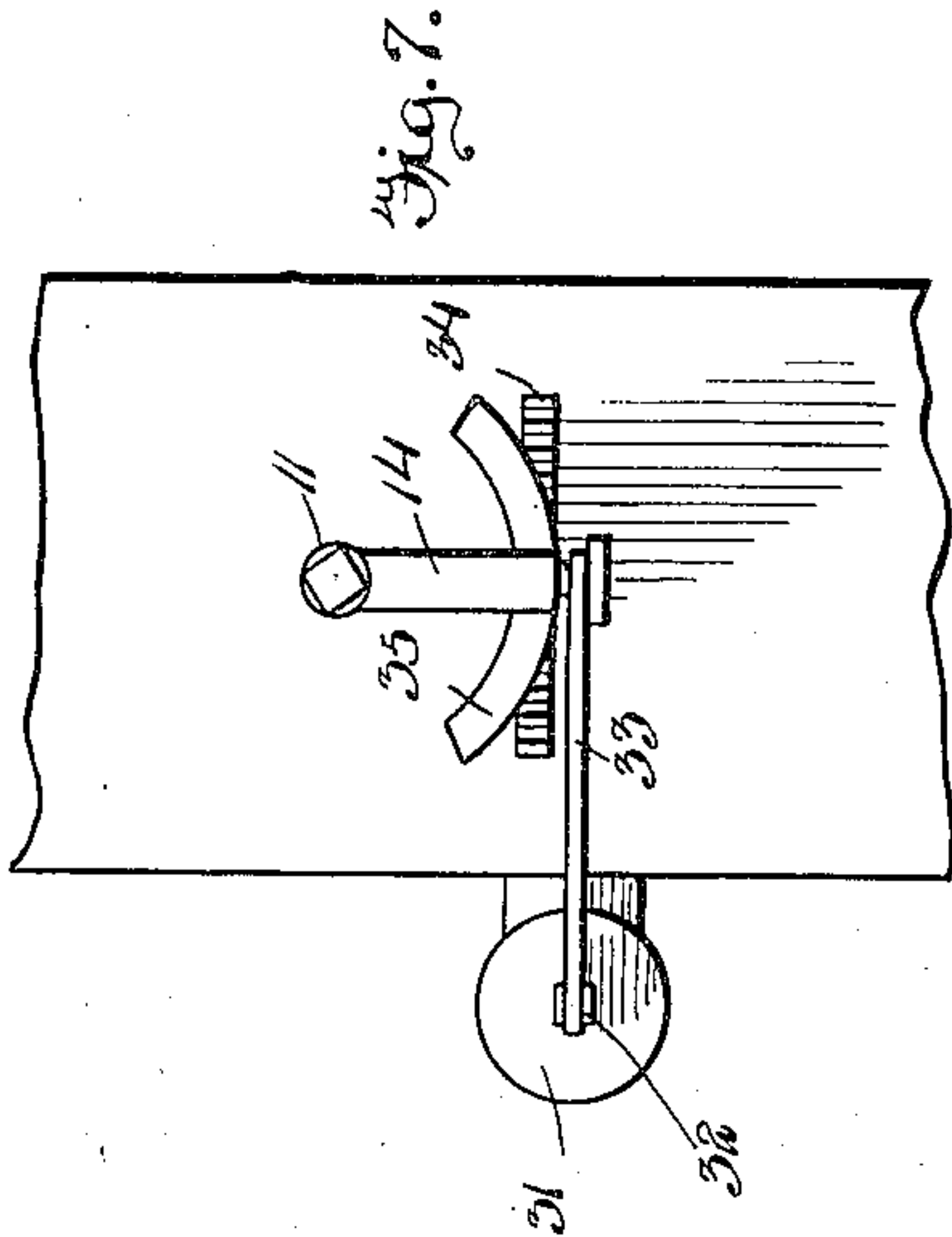
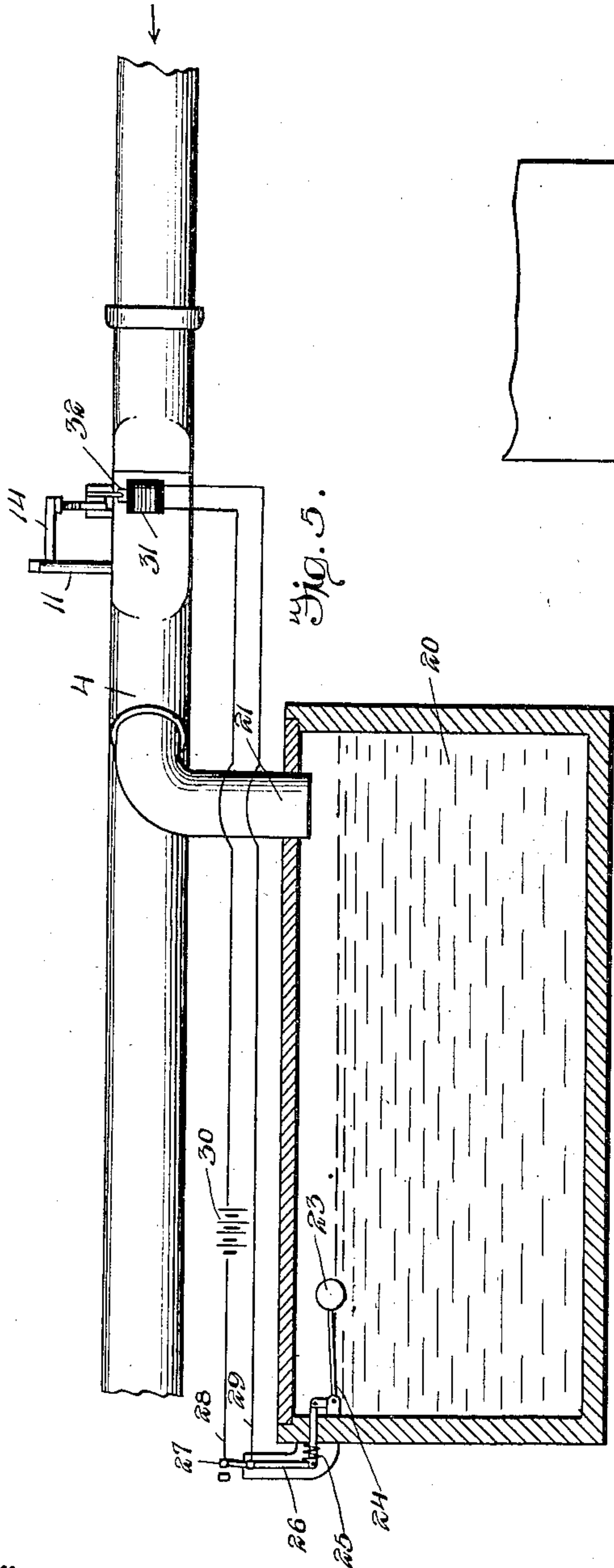
W. B. STURGIS.
WATER SWITCH.

APPLICATION FILED MAY 22, 1908.

925,053.

Patented June 15, 1909.

2 SHEETS—SHEET 2.



Inventor
WILLIAM B. STURGIS,

Witnesses
S. M. Spring.
R. B. Benjamin.

By

David Moore

his Attorney

UNITED STATES PATENT OFFICE.

WILLIAM B. STURGIS, OF SHELBYVILLE, ILLINOIS.

WATER-SWITCH.

No. 925,053.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed May 22, 1908. Serial No. 434,278.

To all whom it may concern:

Be it known that I, WILLIAM B. STURGIS, a citizen of the United States, residing at Shelbyville, in the county of Shelby and State of Illinois, have invented certain new and useful Improvements in Water-Switches, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in water switches, and has special reference to a casing having a switch, which is so mounted and controlled to direct the flow of water from a single main to one of several conduits, or in other words to direct the current where desired, this particular switch being especially desirable where rain water is to be conducted to or from a cistern.

To clearly illustrate my invention, attention is invited to the accompanying drawings, in which:—

Figure 1 is a top plan view of the casing with its cover removed. Fig. 2 is a longitudinal section on line $x-x$, of Fig. 1. Fig. 3 is a cross section on line $y-y$, of Fig. 1. Fig. 4 is a detail view of the switch or gate. Figs. 5, 6 and 7 illustrate switch operating means.

Referring to the drawings:—The numeral 1 designates the casing, which is provided with the main conduit, and the two diverging directing conduits 3 and 4, respectively.

At the point 5 of juncture of all the conduits, I provide the flat bottom 6, the vertical seat 7, and in the walls at 8, I provide the notches, the purpose of which is to provide a non-leakable seat for the extreme end 9, of the switch or gate 10, whose stem or pivot 11, is mounted in the vertical seat 7, the lower projecting end 12 of the stem being mounted in the socket 13, in the bottom of the casing. From this construction it will be seen that should it be desired to direct the flow of water through either one of the conduits 3 or 4, the handle 14 carried exteriorly on the stem 11, is turned so that the outer end of the switch or gate is allowed to seat in one of the notches or seats 8, thus closing one of the conduits and allowing or directing the flow through the other conduit.

The casing is further provided with the cover 15, whereby access to the switch or gate is readily had. The underside 16 of the cover is flat and substantially parallel with the bottom of the casing thus forming with

said bottom a flat contact surface for the opposite edges of the switch or gate, and thus allowing only a small amount of leakage above and below the switch or gate. To hold the cover tightly upon the casing, I provide the lug 17 upon the stem 11 and the pivoted catch 18.

From the foregoing description taken in connection with the drawings, it is evident that I provide a very useful and practical water switch, and one which is very easily installed and is especially adapted for use in rain water cisterns. By making the casing with the main and several other conduits, and all in one piece, the installation of the casing is made easy and more practical.

In Figs. 5, 6 and 7, I have shown my switch connected with an automatic means of operating the same, in these figures, the numeral 20 is the cistern, having the entrance pipe 21. Journaled in the cistern is the float 23, whose lever 24, is adapted as the water level raises the float, to engage the spring returned pin 25, which in turn operates the switch 26, which closes the electrical circuit through contact point 27, wire 28, batteries 30, wire 29, solenoid 31, and the pivot of the switch 26. This action energizes the solenoid, which operates the rod 32, pulls the lever 33, which tilts the toothed segment 34 and turns the horizontal toothed segment 35, and thus turns the gate 11.

I have shown only an electrical mechanism for automatically operating the gate or switch, but I would have it understood that pneumatic, or lever controlled mechanism may be used, and still be within the scope of my invention.

What I claim as new, is:—

In combination with a cistern adapted to receive water, a main having two branches one leading to the cistern and the other away therefrom, said main at the junction of the two branches having its top and bottom walls flat and substantially parallel, a stem pivotally mounted in the top and bottom walls and extending exteriorly of the top wall, the body of the stem also fitting into the wall between the two branches, a gate carried by the stem and having its upper and lower edges parallel and adapted to fit snugly upon and against the flat top and bottom walls, and abutments at the sides of the mouth of the main into which the free end of the gate is stopped and held by the flow of

water through either branch, of a float
mounted within the cistern and actuated by
the rise and fall of the water within the cis-
tern, a pivoted armature actuated by said
5 float, and an electrical circuit closed by the
rise of the float and opened by the fall there-
of, and electromagnetically operated means
in said circuit and operatively connected to

the exterior end of the stem, whereby the
switch is automatically controlled.

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

WILLIAM B. STURGIS.

Witnesses:

ED. R. ALLEN,

WILLIAM O. WALLACE.