

O. BARTEL.
VALVE MECHANISM.
APPLICATION FILED SEPT. 23, 1908.

930,919.

Patented Aug. 10, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

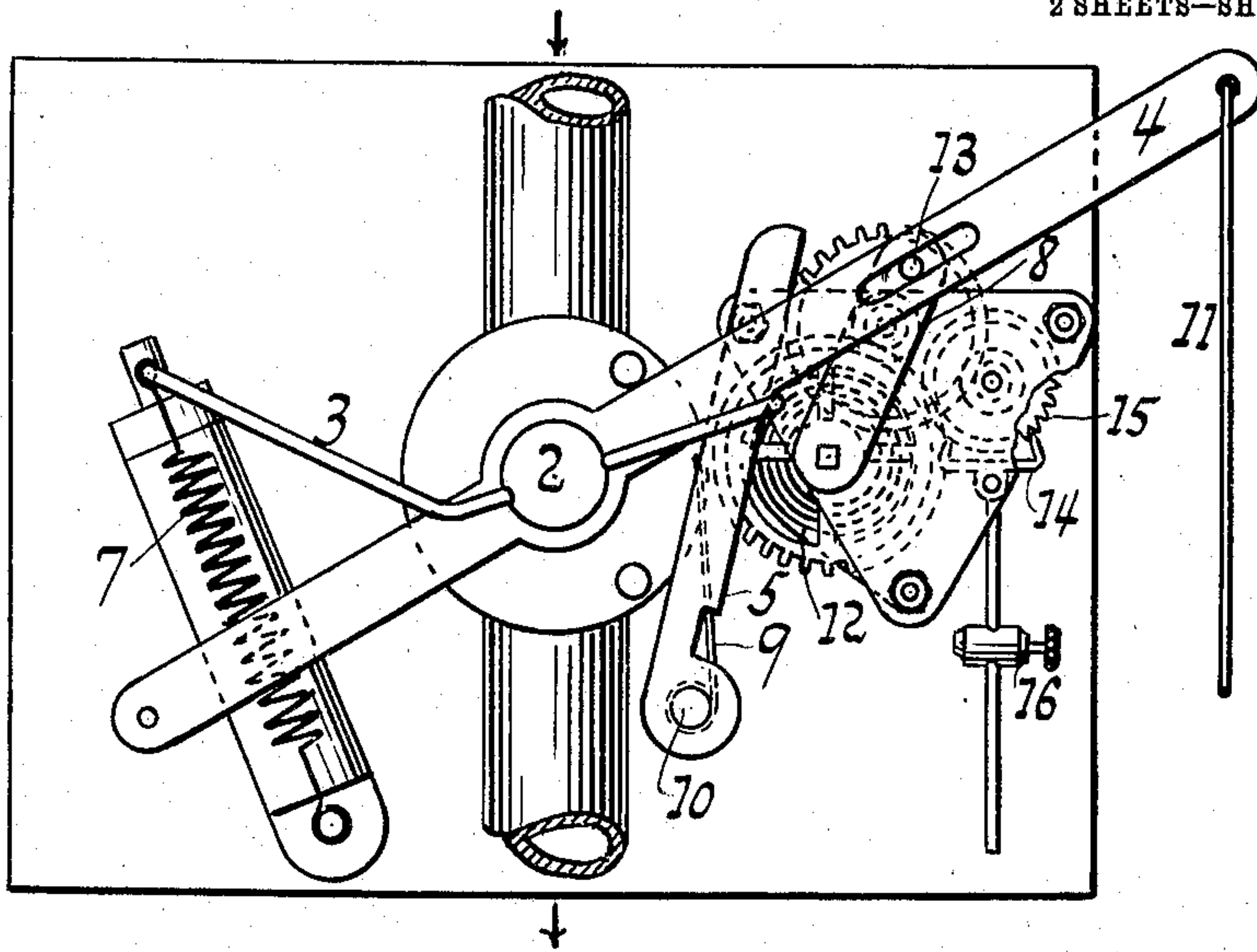
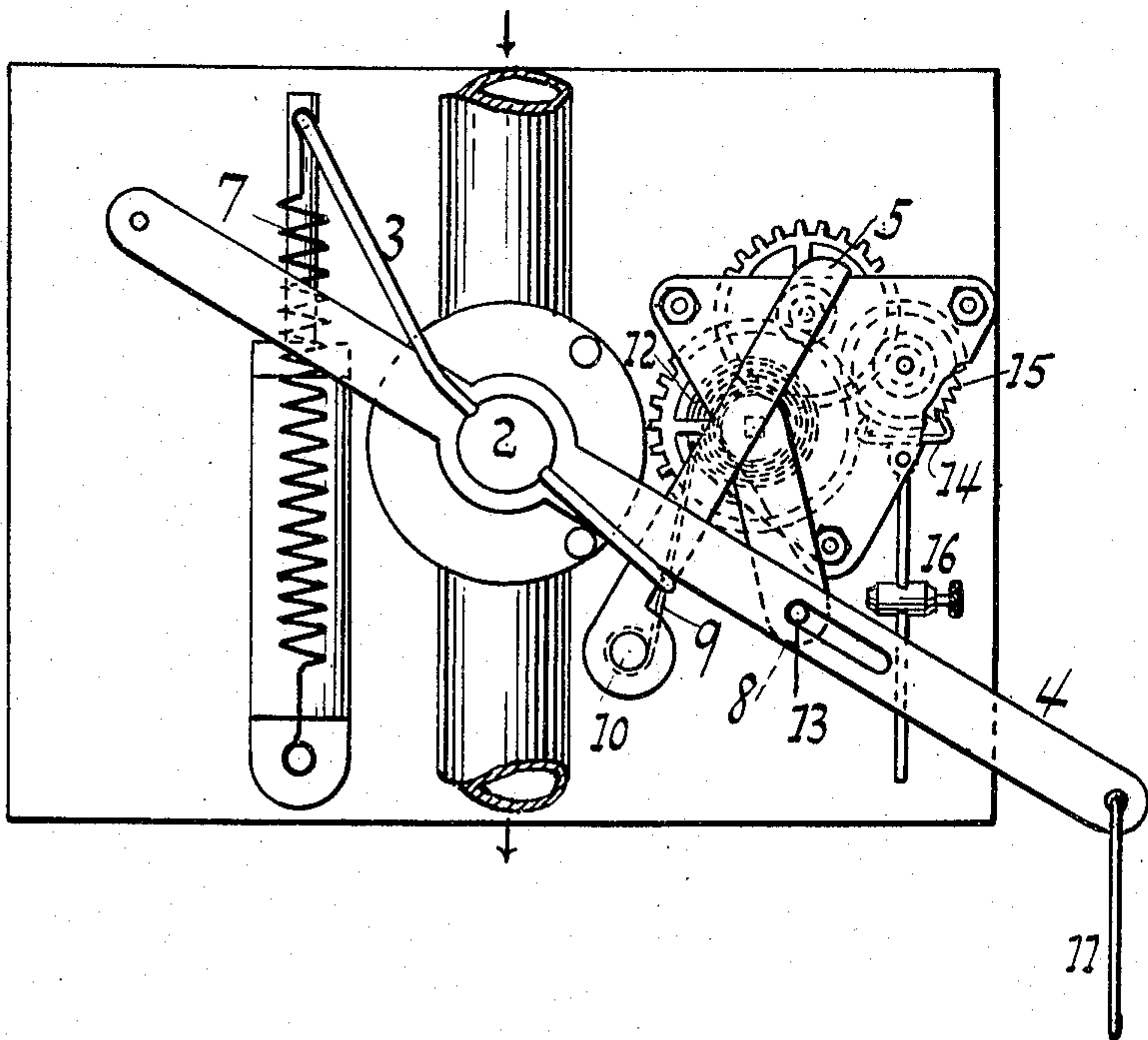


Fig. 2



WITNESSES:

William Miller
Edward Wiesner

INVENTOR

Otto Bartel

BY

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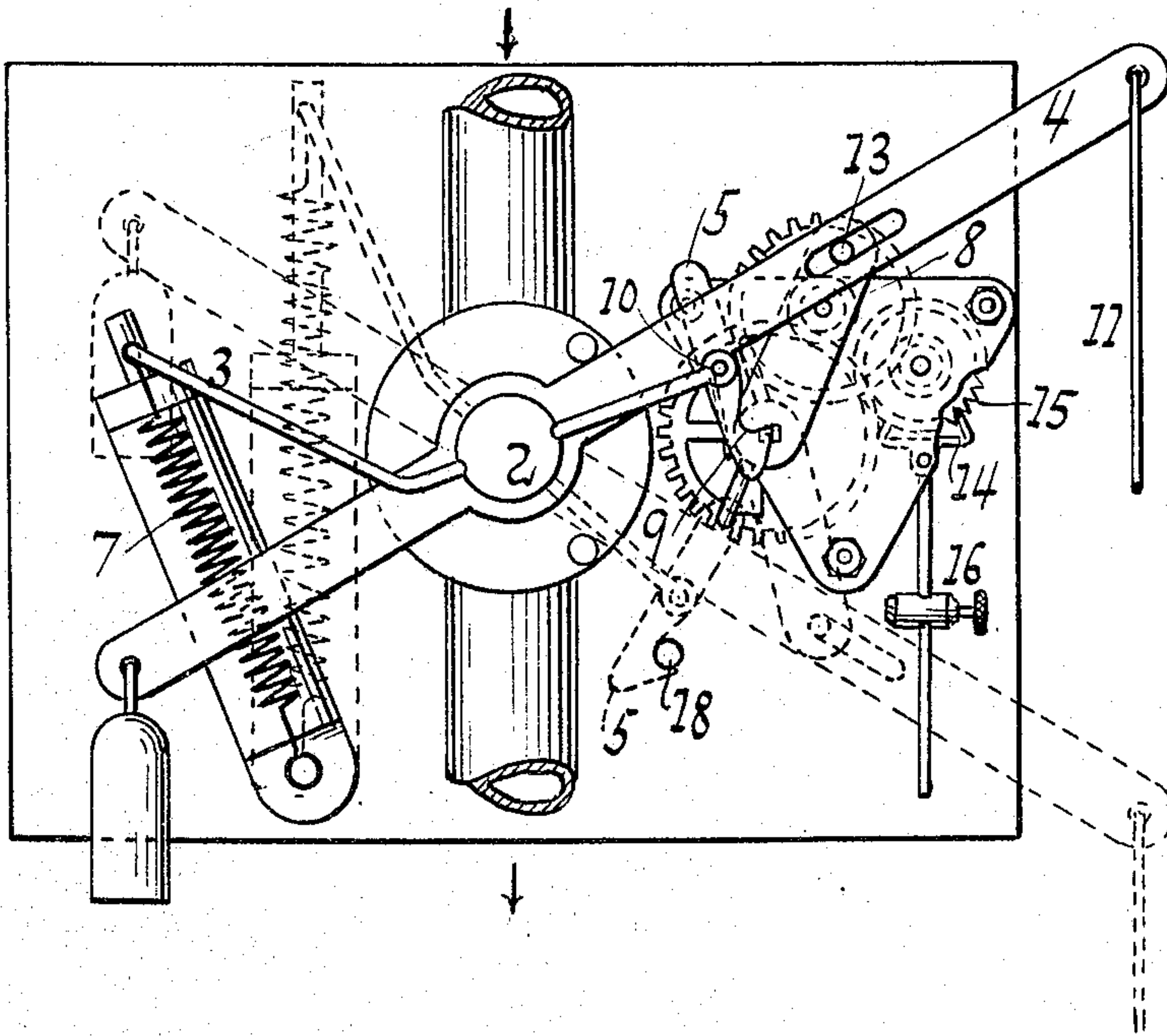
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Fig. 3.



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UNITED STATES PATENT OFFICE.

OTTO BARTEL, OF NEW YORK, N. Y.

VALVE MECHANISM.

No. 930,919.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed September 23, 1908. Serial No. 454,319.

To all whom it may concern:

Be it known that I, OTTO BARTEL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Valve Mechanism, of which the following is a specification.

This invention relates to a mechanism for starting and automatically shutting off the flow of fluids. The operation of the closing mechanism is effected without the aid of the flow of the liquid itself, but by an independent speed regulator or retarder which can be adjusted as seen fit.

This invention is set forth in the following specification and claims and illustrated in the annexed drawing in which:—

Figure 1 is a side elevation of a valve mechanism embodying this invention, the valve being closed. Fig. 2 is a like view to Fig. 1 the valve being open. Fig. 3 shows a modification.

In this drawing is shown a valve stem or axle 2 provided with a lever 3 which tends to normally close the valve. The lever 3 is actuated to open the valve by a hand lever or second lever 4 which can have a handle or pull chain at one end and be closed by suitable means hereinafter referred to. When opened the valve is held open by its lever 3 being held by a catch 5, and when the time regulator or motor 8 frees the catch the spring or weight 7 will re-close the valve 2. These parts in detail are constructed and operate as follows: The catch is moved to engaging position by a spring 9 so that when lever 3 is moved to position to open the valve and an end of said lever comes to the shoulder or catch part of catch 5 the latter is swung about its pivot 10 to engaging position and prevents return of lever 3 for the time being. The lever 4 engages the lever 3 but is not secured thereto, and lever 4 moves lever 3 to position to open the valve but can return while the lever 3 is still held by catch 5. The lever 4 is actuated by a handle chain 11 and returned in suitable way as presently explained. In the example shown in Fig. 1 the lever 4 is returned by the tension of a spring 12 which having been wound by the pull on lever 4 tends to return and will carry

the arm 8 or its pin 13 which engages the lever 4 back to catch 5 to move the same back to free it from lever 3. The time of return can be controlled by a motor or speed regulator such as an escapement 14 and 15 with pendulum bob or weight 16, or a fly wheel or other suitable speed retarder.

The device can be variously modified. For example the spring 12 for returning the speed regulator with lever 4 could be a weight as shown. Such spring 12 is applied to the arm 8 and wound as this arm is swung by lever 4. Or the return of lever 4 could be effected by spring or weight properly applied to the lever 4 Fig. 3 and the lever 4 and speed regulator 8 suitably connected by pin and slot connections. In either case the motor 12 whether applied to the lever 4 or to speed regulator arm 8 will act as a motor for effecting the time of release for the return of the valve.

In the modification Fig. 3 the catch 5 is mounted by its pivot 10 on the lever 3 and as the lever is moved to valve opening position the catch 5 engages the fixed point or stud 18 and holds the lever 3 with valve until the arm 8 of the speed regulator or a tail piece thereon has moved catch 5 free of stop 18 when lever 3 will return and valve 2 re-close.

What I claim is:—

1. A valve, a lever for operating the valve, a catch for the lever to hold the latter with the valve open, a second lever for actuating the valve operating lever, and retarding means for controlling the movement of the second lever and to release the catch.

2. A valve with actuating lever and means for normally actuating the lever to close the valve combined with a catch for the lever, a second lever for bringing the valve actuating lever to engagement with the catch, means for returning the second lever and to free the catch, and a speed regulator for regulating the return of the second lever.

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

OTTO BARTEL.

Witnesses:

EDWARD WIESNER,
CHRISTIAN ALMSTAEDT.