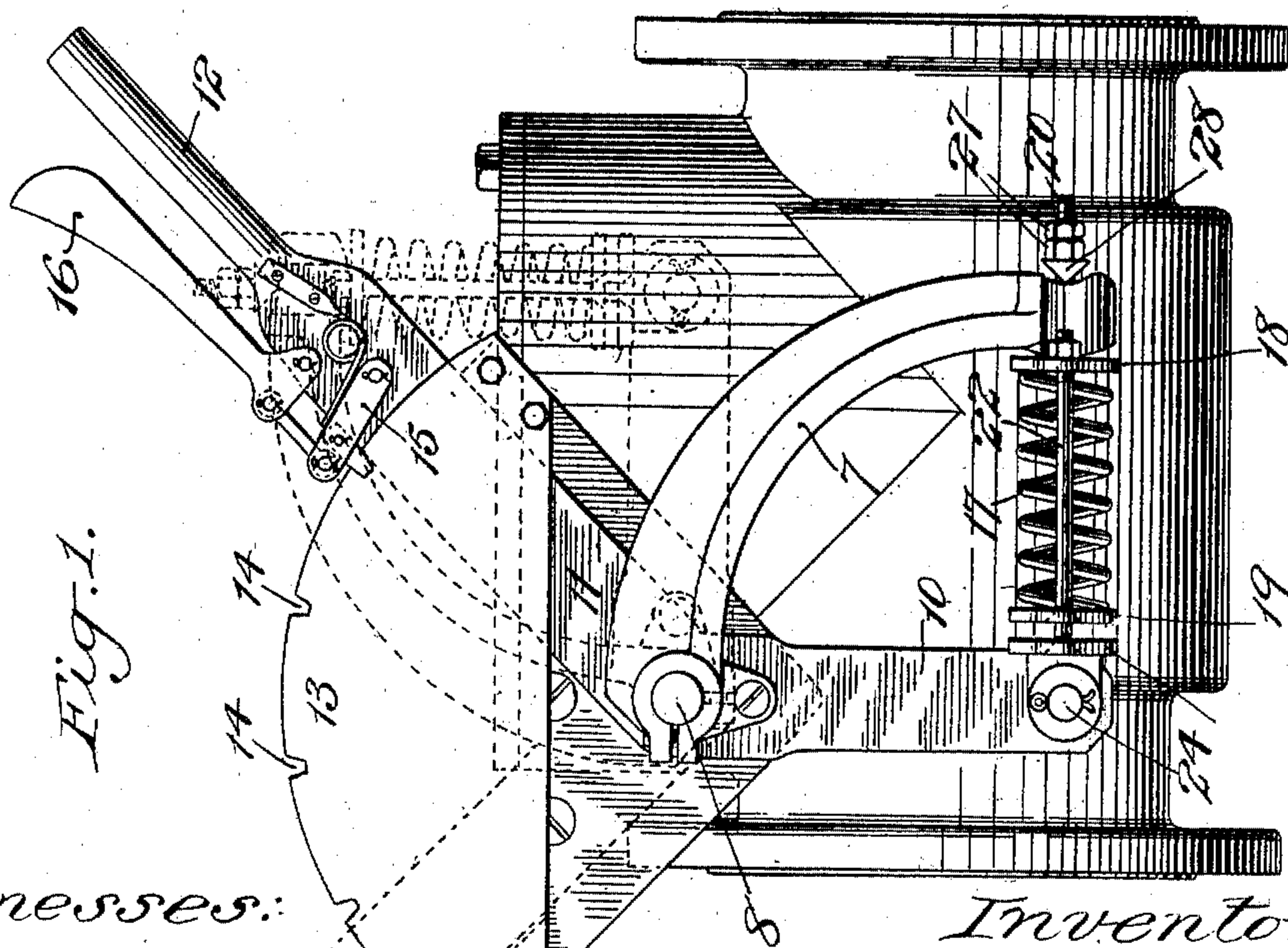
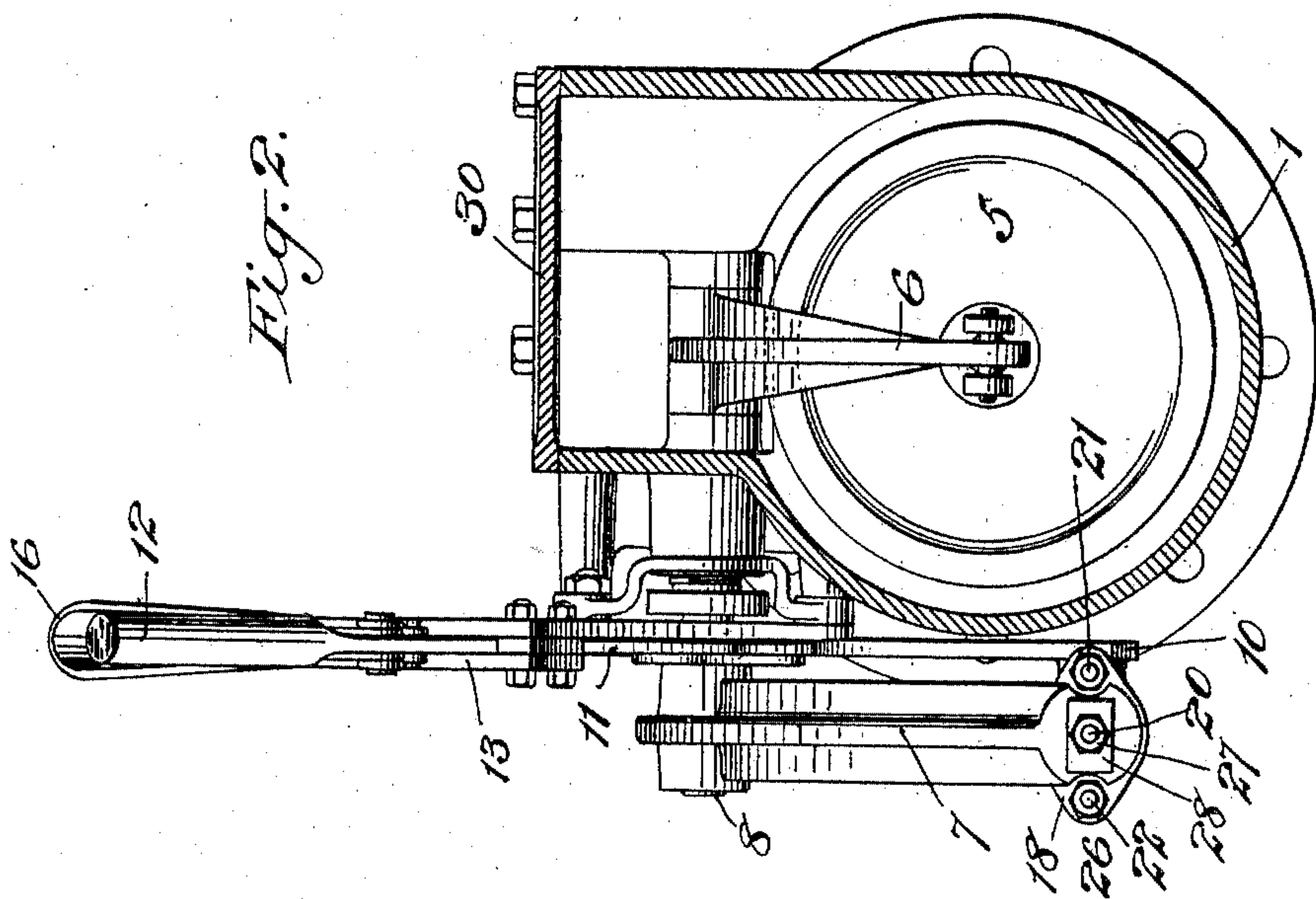


R. TRAUTSCHOLD.
MANUALLY OPERATED CHECK VALVE.
APPLICATION FILED OCT. 7, 1909.

967,465.

Patented Aug. 16, 1910.

2 SHEETS—SHEET 1.



Witnesses:
J. George Barry.
Henry Thorne.

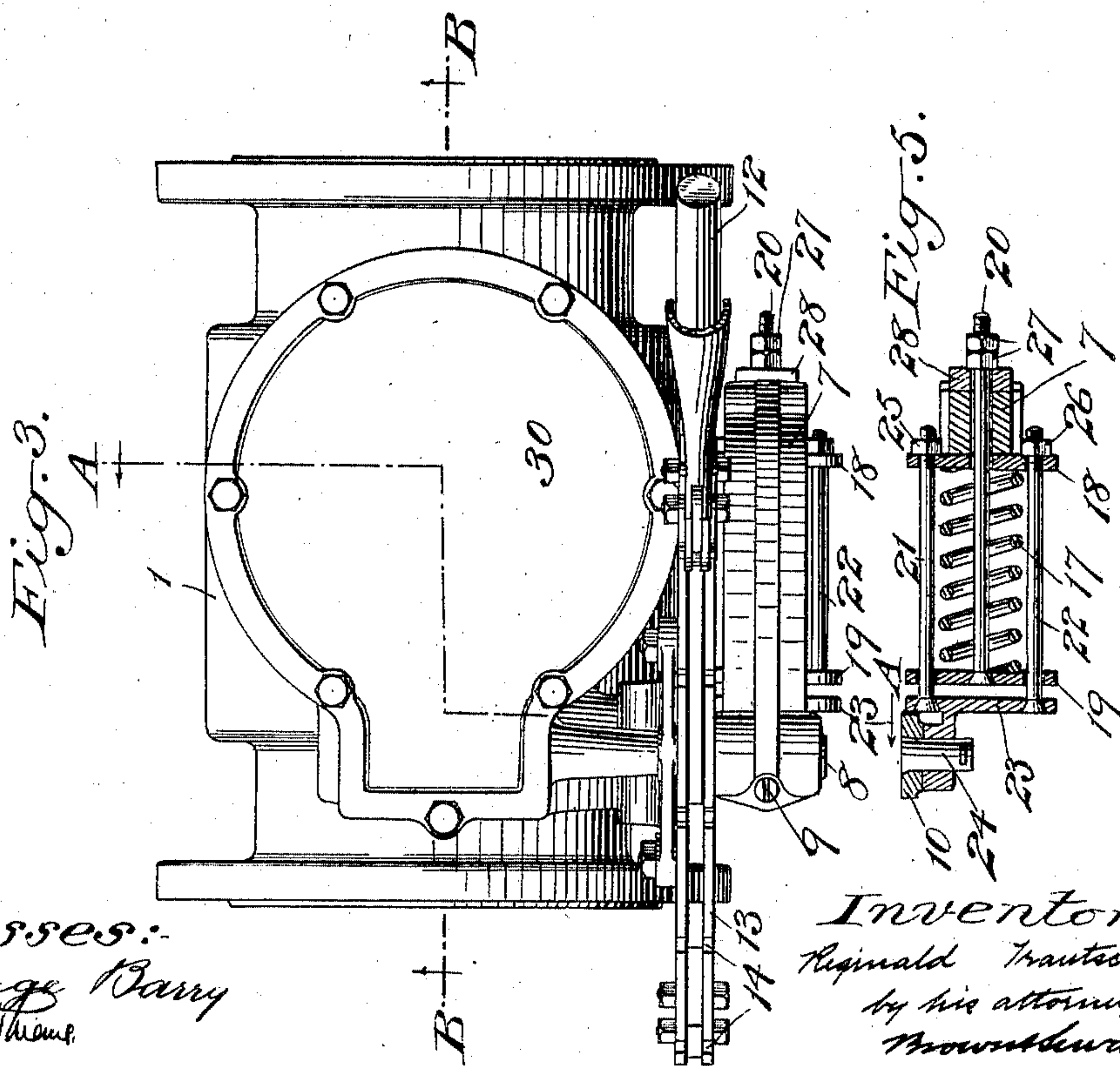
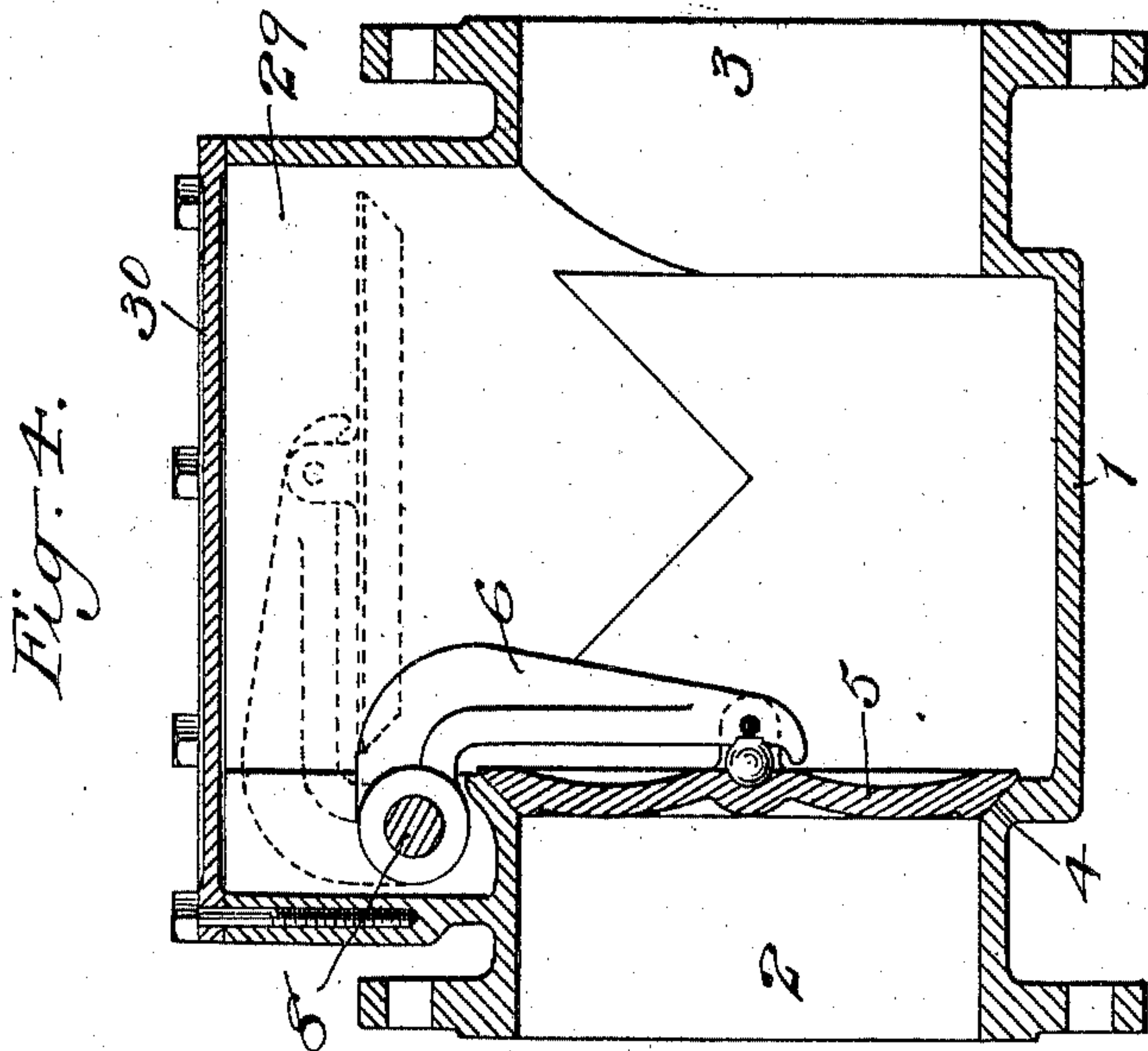
Inventor:
Reginald Trautschold
by his attorneys
Brounckward

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2 SHEETS—SHEET 2.



Witnesses:
F. George Barry
Henry Thomas

Inventor:
Reginald Trautschold
by his attorney
Mowbray

UNITED STATES PATENT OFFICE.

REGINALD TRAUTSCHOLD, OF MONTCLAIR, NEW JERSEY, ASSIGNOR TO INTERCONTINENTAL ENGINEERING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

MANUALLY-OPERATED CHECK-VALVE.

967,465.

Specification of Letters Patent.

Patented Aug. 16, 1910.

Application filed October 7, 1909. Serial No. 521,473.

To all whom it may concern:

Be it known that I, REGINALD TRAUTSCHOLD, a subject of the Crown of Great Britain, and resident of Montclair, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Manually-Operated Check-Valves, of which the following is a specification.

This invention consists in an improvement in manually operated check valves of the hinged valve type, the valve being applicable for various uses.

The object of this invention is to provide certain improvements in the construction, form and arrangement of the several parts of the valve whereby the operation thereof, either automatic or manual, is facilitated.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 represents the valve in side elevation, the parts being shown in full lines in the position which they assume when the valve is closed and in dotted lines in the position which they assume when the valve is manually opened, Fig. 2 is a section taken in the plane of the line A—A of Fig. 3, looking in the direction of the arrows, the valve operating mechanism being shown in full lines, Fig. 3 is a top plan view of the valve, Fig. 4 is a section taken in the plane of the line B—B of Fig. 3, looking in the direction of the arrows, and Fig. 5 is a detail section showing the yielding connection between the valve disk lever and the hand lever which permits the automatic opening of the valve to a certain extent in one direction under the influence of an excess of pressure.

The valve casing is denoted by 1, its inlet by 2 and outlet by 3. The valve seat is denoted by 4 and the valve disk for opening and closing the said seat is denoted by 5. The valve disk lever comprises an interior arm 6 and an exterior arm 7 both fast upon a cross rock shaft 8 mounted in the valve casing 1. The interior arm 6 carries the valve disk 5. The exterior arm 7 is adjustably clamped to the rock shaft 8 by a suitable screw 9 for properly fixing the position of the arm 7 with respect to the arm 6.

The hand lever for manually operating the

valve disk 5 comprises the depending arm 10 and an uprising arm 11 developed into a handle 12. A stationary notched segment 13 is secured to the valve casing 1, the notches 14 of which segment are arranged to receive the nose of a spring pressed dog 15 carried by the hand lever, which dog is operated by a grip 16. The hand lever is loosely mounted on the rock shaft 8 and a yielding connection is interposed between the hand lever and the valve disk lever as follows:— A coil spring 17 is interposed between the free ends of the arms 7 and 10, said spring tending to draw the arms together and thereby tending to hold the valve disk closed. In the present instance, this spring is shown as interposed between two plates 18, 19, the plate 18 being slidably mounted upon a middle tie rod 20 and the plate 19 being slidably mounted upon the side guide rods 21, 22. The rods 21, 22, lead from a plate 23 pivoted at 24 to the depending arm 10 of the hand lever through both the plates 19 and 18 and are provided with nuts 25, 26, engaging the screw threaded ends of the said rods beyond the plate 18. The central tie rod 20 leads from the plate 19 through the plate 18 and the free end of the arm 7 of the disk valve lever, which rod is provided on its screw threaded end with nuts 27 beyond the arm 7. A knife bearing 28 is interposed between the nuts 27 and the outer face of the arm 7 of the disk valve lever.

The valve casing 1 is provided with a chamber 29 closed by a cover 30, within which chamber the valve disk 5 and its arm 6 may be swung when the valve is manually opened thus opening an unobstructed passage through the valve casing from the inlet 2 to the outlet 3.

From the above description it will be seen that the yielding connection between the valve disk lever and hand lever may be accurately adjusted so that the valve disk will remain closed until a pressure in excess of a predetermined amount is reached. The valve disk will then open automatically by the force of this excess of pressure without disturbing the hand lever. When it is desired to manually open the valve, it may be accomplished by the manipulation of the hand lever, the notched segment serving to permit the hand lever to be locked in differ-

ent positions along the same for holding the valve disk in different positions within the casing.

It is evident that various changes might be resorted to in the form and arrangement of the several parts without departing from the spirit and scope of my invention; hence I do not wish to limit myself strictly to the structure herein set forth, but

What I claim is:—

1. A check valve comprising a casing, a swinging valve disk, its lever having a valve disk arm located within the casing and a spring pressed arm located exterior to the casing and means for adjusting the tension of the said spring pressed arm.

2. A manually operated check valve comprising a swinging valve disk, its lever, a hand lever and a yielding connection between the two levers.

3. A manually operated check valve comprising a casing, a swinging valve disk, its lever having an arm exterior to the casing,

a hand lever, and a yielding connection between the said exterior arm of the valve disk lever and the hand lever.

4. A manually operated check valve comprising a casing, a rock shaft mounted therein, a valve disk, its lever having an interior valve disk arm and an exterior arm both fast on said shaft, a hand lever loosely mounted on said shaft and a yielding connection between the two levers.

5. A manually operated check valve comprising a swinging valve disk, its lever, a hand lever, a yielding connection between the two levers and means for locking the hand lever in different positions.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this first day of October, 1909.

REGINALD TRAUTSCHOLD.

Witnesses:

F. GEORGE BARRY,
C. S. SUNDGREN.