

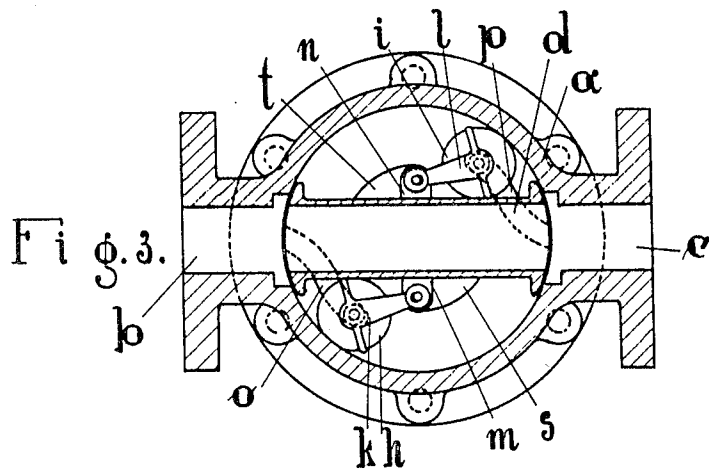
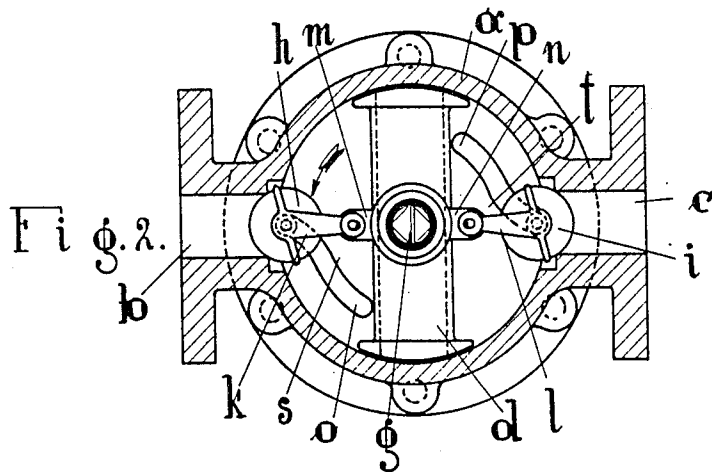
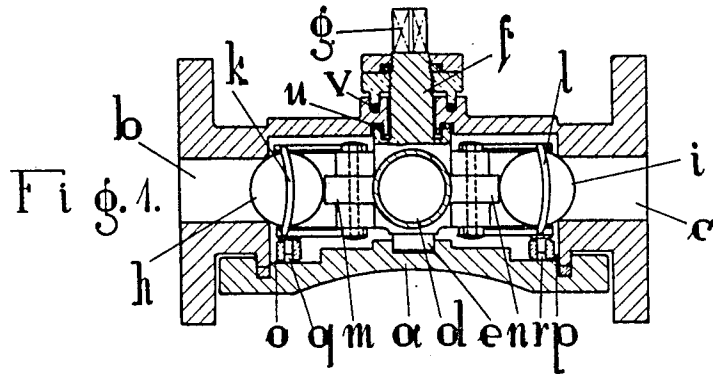
BEST AVAILABLE COPY

E. BESSERT.
VALVE.

APPLICATION FILED DEC. 12, 1911.

1,044,124.

Patented Nov. 12, 1912.



WITNESSES.

L. J. Murphy
John Murtagh

INVENTOR.

Emil Bessert
BY *Charles Greiner*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

EMIL BESSERT, OF FRONDENBERG-ON-THE-RUHR, GERMANY.

VALVE.

1,044,124.

Specification of Letters Patent.

Patented Nov. 12, 1912.

Application filed December 12, 1911. Serial No. 665,227.

To all whom it may concern:

Be it known that I, EMIL BESSERT, a citizen of the German Empire, and residing at Frondenberg-on-the-Ruhr, Germany, have
 5 invented certain new and useful Improvements in Valves, of which the following is a specification.

My invention relates to valves, and a primary object is to provide an improved closure device for gases or liquids which possesses not only the good properties of stopcocks but also those of valves.

When my device is open, it comprises between its branch pipes a smooth connecting
 15 channel or duct, as in stopcocks, while when it is closed, its ports are closed by firmly pressed valve disks or the like, as in valves.

My improved device also has the good property of stopcocks in that, when changing from fully closed to fully open, only a
 20 quarter turn is necessary, while, on the other hand, the bad properties of stopcocks, *e. g.*, burning fast, are entirely avoided.

My improved device is therefore particularly suitable as a blow-off valve for steam
 25 boilers, because in such valves rapid opening, tight closure and a smooth passage obviating stoppage by small pieces of boiler scale are specially desirable features.

My improved closure device or valve comprises a box, provided with branch pipes,
 30 and containing a revoluble pipe adapted to be placed so that it establishes a smooth connection between two branches. When this
 35 pipe is moved two valve bodies are simultaneously moved so that in their closed position they close the mouths of the branches, while in their open position in which the
 40 pipe forms the connecting channel, they are drawn back from the branches.

The accompanying drawing shows by way of example a closure device in which two balls are used as valve bodies, each of which
 45 can rotate freely in a holder pivoted on the revoluble pipe, so that when the pipe is rotated the balls can enter into the mouths of the branches or are moved away by it.

In said drawing:—Figure 1 is a vertical sectional elevation, and Fig. 2 a horizontal
 50 section showing my device in its closed position, and Fig. 3 is a horizontal section showing the same in its open position.

Referring to the drawing, the pipe *d* having the pivots *e* and *f* is journaled in the
 55 box *a* having the branch pipes *b* and *c*. The

pivot *f* is extended outside the box and provided with a squared portion *g*. The balls *h* and *i* are surrounded by the holders *k* and *l* pivotally connected to the two lugs *m* and *n* of the pipe. The holders *k* and *l* are
 60 guided by the grooves *o* and *p* by means of pins *q* and *r*, respectively. For facilitating their motion small antifriction rollers are carried by the pins.

In the position represented in Figs. 1 and
 65 2 when the valve is closed, the balls are located at the ends of the branch pipes, and for obtaining a firm closure a pressure is exercised on them by the lugs *s* and *t* on the pipe. To enable this and to enable the hold-
 70 ers to move laterally when the valve is being opened, the holes at the joints of the holders are made oval, as clearly shown in Figs. 2 and 3.

The valve can be packed simply and effectively by packing-rings *u* and *v* consisting for example of asbestos coated with
 75 graphite.

I claim:—

1. In a valve, the combination with a
 80 valve-box having ports, of a pipe rotatably mounted in the valve-box and adapted to connect together the said ports, and means pivotally mounted on the said pipe and
 85 guided by slots in the valve-box for closing the said ports.

2. In a valve, the combination with a valve-box having two oppositely disposed ports and two slots, of a pipe rotatably
 90 mounted in the valve-box and adapted to connect the said ports and two holders pivotally mounted on said pipe and guided in said slots, each holder carrying a ball adapted to close one of said ports.

3. In a valve, the combination with a
 95 valve-box having two oppositely disposed ports and two slots, of a pipe having two lugs rotatably mounted in the valve-box and adapted to connect the said ports and two holders pivotally mounted on said lugs and
 100 guided in said slots, each holder carrying a ball adapted to close one of said ports.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

EMIL BESSERT. [L. s.]

Witnesses:

HELEN NUFER,
 A. NUFER.