

No. 849,534.

PATENTED APR. 9, 1907.

W. H. ELLIS.
CUT-OFF AND DRAINAGE APPARATUS.
APPLICATION FILED FEB. 1, 1907.

Fig. 1.

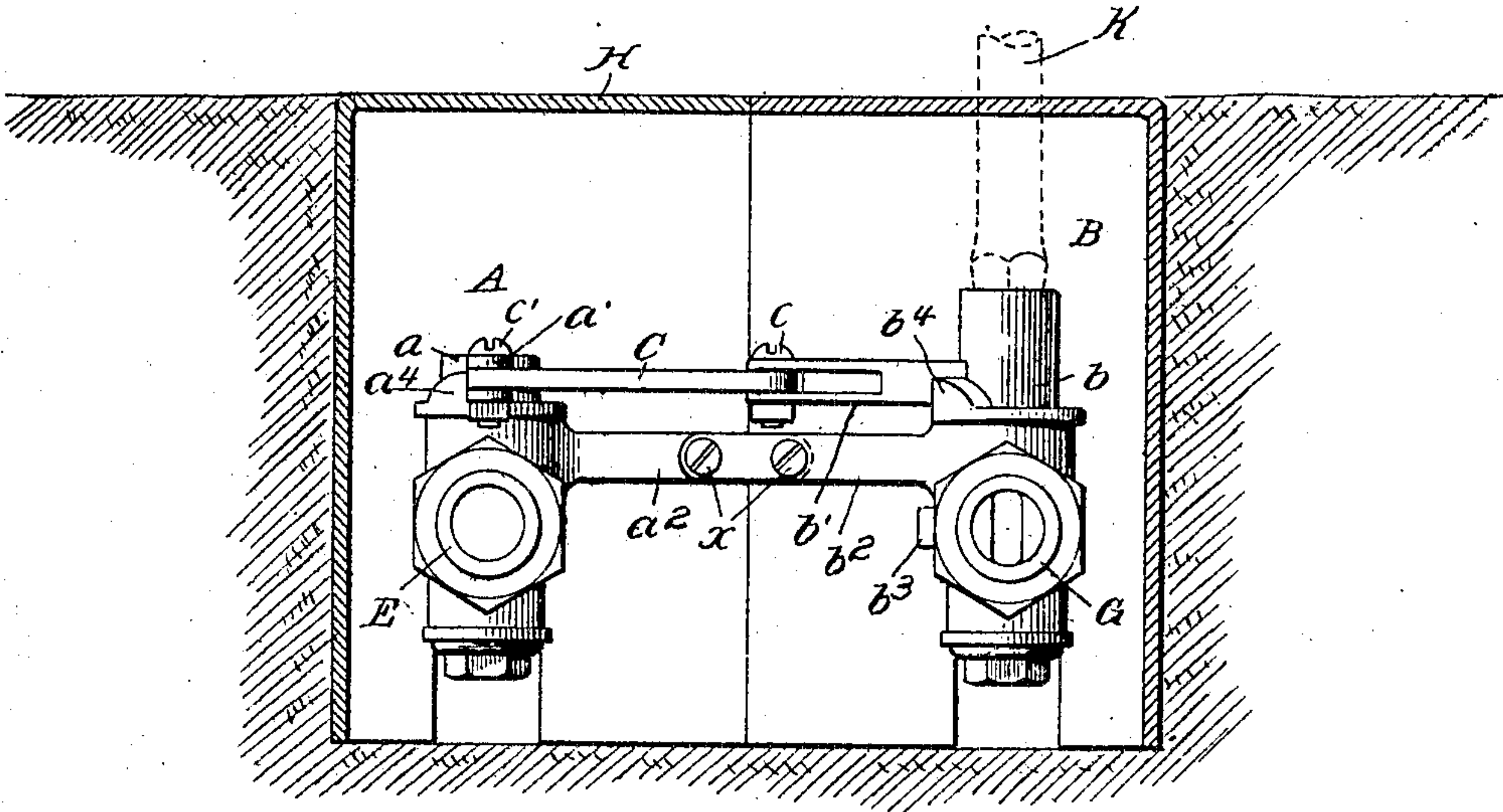


Fig. 2.

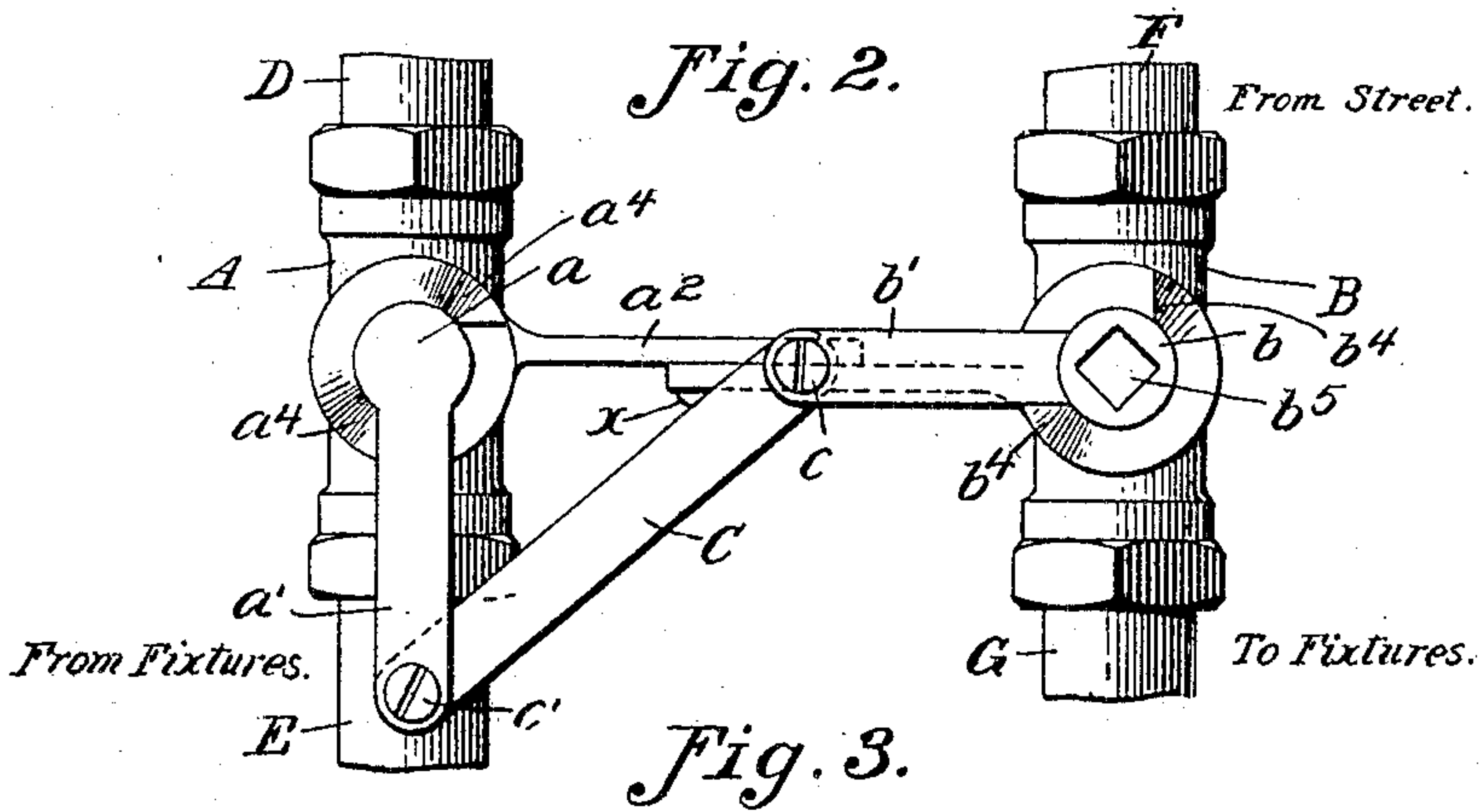
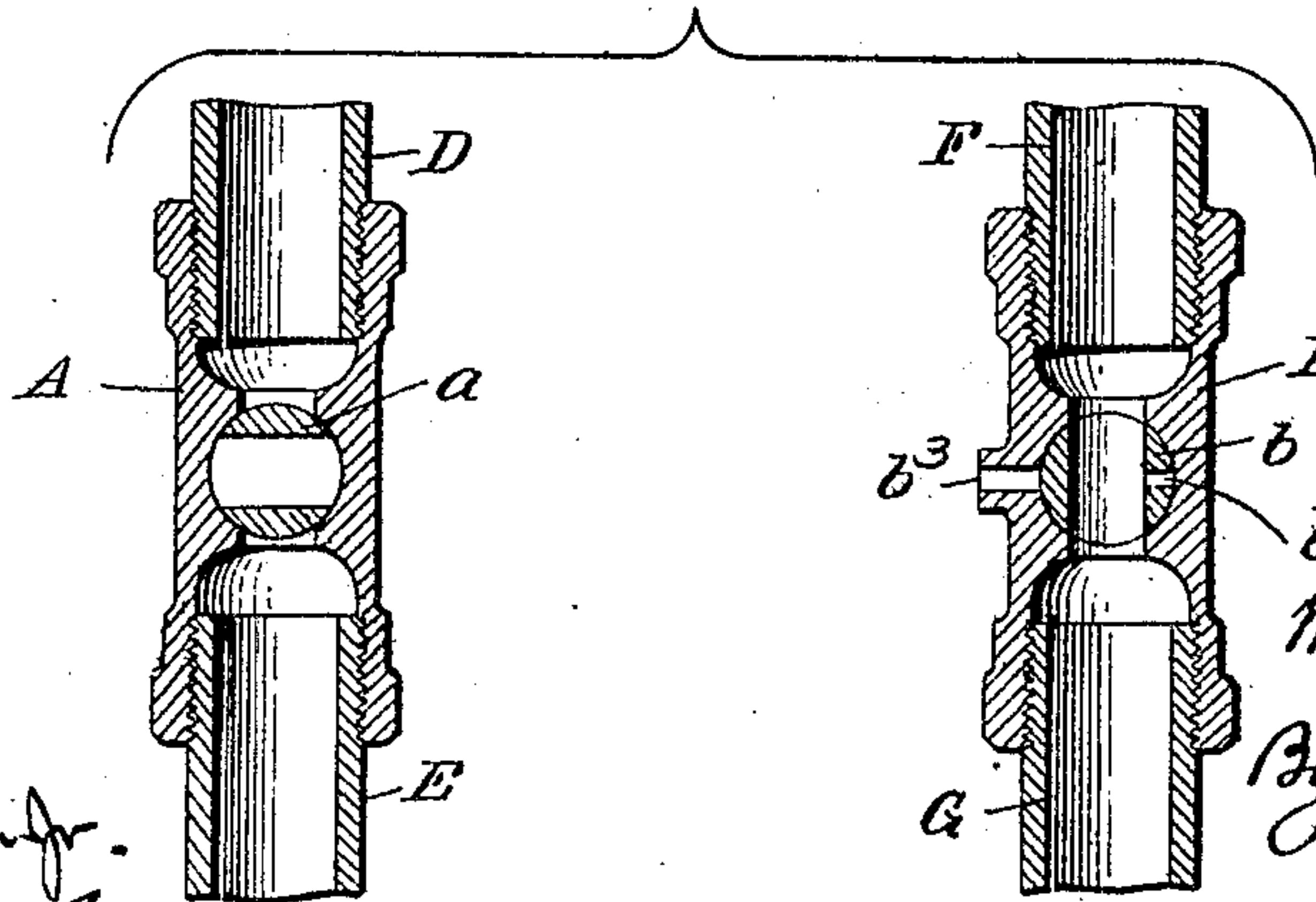


Fig. 3.



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UNITED STATES PATENT OFFICE.

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CUT-OFF AND DRAINAGE APPARATUS.

No. 849,534.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed February 1, 1907. Serial No. 355,337.

To all whom it may concern:

Be it known that I, WINFIELD H. ELLIS, a citizen of the United States of America, and a resident of Argenta, Little Rock, county of Pulaski, State of Arkansas, have invented certain new and useful Improvements in Cut-Off and Drainage Apparatus, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my apparatus, showing it inclosed in a casing or box set in the ground; Fig. 2, a plan view with the box removed, and Fig. 3 a horizontal sectional view showing the relative positions of the supply and drain cocks.

The object of this invention is to provide a simple valve apparatus which will insure the complete draining of both the cold-water and the hot-water systems of a building when the cold water is cut off from the house system, whereby freezing in either the cold-water system or the hot-water system in the house is avoided, as more fully hereinafter set forth.

To the accomplishment of this object and such others as may hereinafter appear, the invention consists of the parts and combination of parts hereinafter fully described, and particularly pointed out in the appended claim, reference being had to the accompanying drawings, forming a part of this specification, in which the same reference characters designate like parts throughout the several views.

Referring to the drawings by reference characters, A designates a coupling or casing in which a vertical turn-plug or cock *a* is mounted, the upper end of this plug projecting above the casing and being provided with a radial arm *a'*. This arm *a'* vibrates between shoulders *a''*, formed on the top of the casing, and projecting inwardly from the casing of the valve is a horizontal arm *a'''*.

The letter B represents a coupling or casing similar to casing A and which is provided with a vertical turn-block or cock *b*, which is provided with the usual main water-passage through it and also a drain-port *b'*, which is adapted to put the house end of the casing or coupling in communication with

drain-port *b'* when the cock is closed. The upper end of the plug is provided with a squared socket with which may be engaged a suitable operating key or wrench K for opening and closing the plug. This plug *b* is provided with a radial arm *b'*, which vibrates between shoulders *b''* on the top of the casing to open and close the cock. This casing B is also provided with a lateral arm *b'''*, extending inwardly and overlapping a similar arm *a'''*, carried by the casing A. These two arms are rigidly but detachably connected together by screw-bolts *x*, which pass through registering holes in the arms.

The ends of the arms *a'* and *b'* are connected by a link C and pivot screws or bolts *c* and *c'*, whereby when the supply-plug *b* is opened the drain-plug *a* is closed, and vice versa. The pipe F from the main is connected to one end of the coupling B and a pipe G to the other end, this latter pipe being connected to the fixtures in the building. The pipe E, leading from the fixtures, is connected to the inlet end of coupling A, and a pipe D is connected to the outlet end of said coupling. It will be observed, therefore, that when plug *b* is closed the system connected to pipe G will be drained through *b'* and *b'''*, and the hot-water system connected to E will drain out through plug *a* and pipe D. The casing or box H is notched at its lower end, so as to be supported on the projecting ends of the pipes, and, as shown, this box may be made in halves, and it will be provided with a suitable opening for the insertion of the operating key or wrench K. The drainage-water may be permitted to soak away into the surrounding sand or earth, or it may be conducted to a sewer or drain, as is obvious.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In an apparatus for the purpose set forth, the combination of a valve or cock inserted in the supply-pipe, said cock being provided with a drain-port and with a lateral arm and means for restricting the movement of the arm, the casing of said cock being provided with a rigid lateral arm, another valve or cock arranged opposite the aforesaid cock and inserted in the drainage-pipe from the

heating system, the plug of this pipe being provided with a radial arm, the casing of this cock being provided with a rigid lateral arm, means for detachably connecting the
5 two rigid lateral arms, and a pivotal link connecting the ends of the arms carried by the plugs, for the purpose set forth.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 26th day of January, 1907.

WINFIELD H. ELLIS.

Witnesses:

R. E. STALLINGS,

A. D. BAILEY.