(No Model.)

H. WALKER.

FLAP VALVE FOR SEWERS OR DRAINS.

No. 420,367. Patented Jan. 28, 1890

FIG. 1.

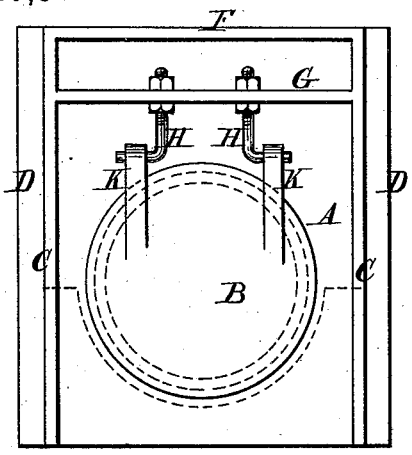


FIG. 2.

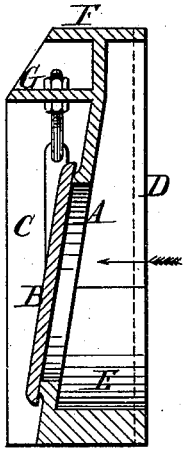


FIG. 3.

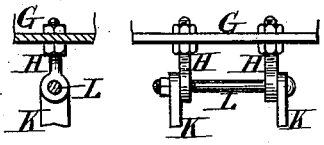
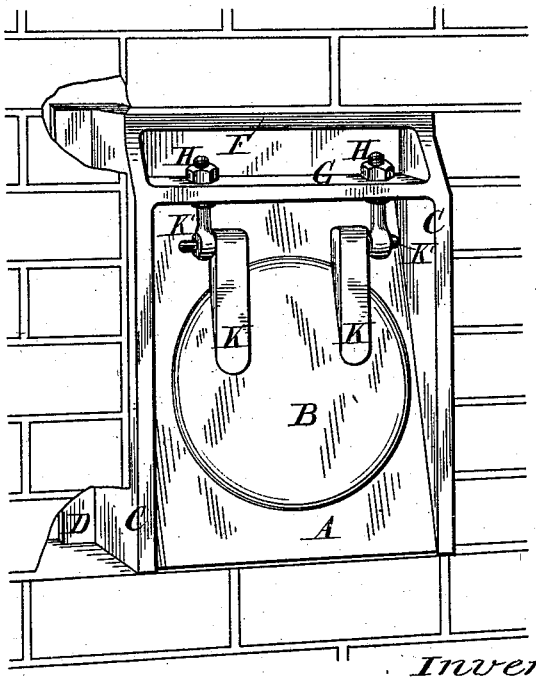


FIG. 4.



Witnesses
E. B. Bolton
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Inventor:
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By Richards & Co.
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UNITED STATES PATENT OFFICE.

HENRY WALKER, OF BRUNSWICK SQUARE, COUNTY OF MIDDLESEX, ASSIGNOR TO HENRY MUNDAY, OF 23 OAKLEY SQUARE, ENGLAND.

FLAP-VALVE FOR SEWERS OR DRAINS.

SPECIFICATION forming part of Letters Patent No. 420,367, dated January 28, 1890.

Application filed November 5, 1889. Serial No. 329,328. (No model.) Patented in England July 8, 1889, No. 10,979.

To all whom it may concern:

Be it known that I, HENRY WALKER, a citizen of England, residing at 15 Henrietta Mews, Brunswick Square, in the county of Middlesex, England, have invented new and useful Improvements in Flap-Valves for Sewers or Drains, (for which a patent was granted me in Great Britain, July 8, 1889, No. 10,979,) of which the following is a specification.

A flap-valve for a sewer or drain, as it is usually constructed, consists of a flap, generally of disk form, which hangs by hinges above it in front of a facing forming the end of the length of sewer or drain, so that the flap can swing away from the facing and allow passage of fluid from the sewer or drain, but closes against the facing to prevent passage of fluid in the opposite direction. The hinges by which the flap is suspended frequently give way and cannot be easily repaired or replaced, so that when fracture occurs it often becomes necessary to remove the facing and flap entirely and to substitute a new set.

This invention relates to a construction such that repairs can be readily effected, as I shall describe, referring to the accompanying drawings.

Figure 1 is a front view, and Fig. 2 is a vertical section, of a flap valve and seating according to this invention.

The frame is a casting made with an inclined facing A, with a circular hole through it covered by the flap. On each side of the facing is a projecting rib C, with a flange D at each side, so that when the frame is built in the brick-work it is firmly held. At the back of the facing A there is a semi-cylindrical seating E, to receive the end of the sewer or drain pipe which abuts against the facing. Above the facing a recess is formed between two horizontal ribs F and G, this recess being large enough to admit a wrench for screwing up nuts on the hinge-bolts H. These bolts, which pass through holes of the rib G, may be hook-bolts, as shown in Fig. 1, to engage in eyes of arms K, projecting up from the disk-valve B; or they may be made, as shown in Fig. 3, eyebolts to receive a pin L, passed through them and through the arms K, or to receive pins K′ on the arms K, as shown in Fig. 4. When the bolts H become slack or give way, as they are apt to do, access can readily be got to their nuts between the ribs F and G, so that they can be tightened up or have new bolts substituted for them without having to displace or interfere with the framing.

The framing, instead of being cast in metal, may be made of earthenware, artificial stone, or cement.

Having thus described the nature of my invention and the best means I know for carrying the same into practical effect, I claim—

The seating-frame of a flap-valve for a sewer or drain, formed with a recess between two horizontal ribs to give access to the nuts of the hinge-bolts, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 23d day of October, A. D. 1889.

HENRY WALKER.

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