

No. 708,076.

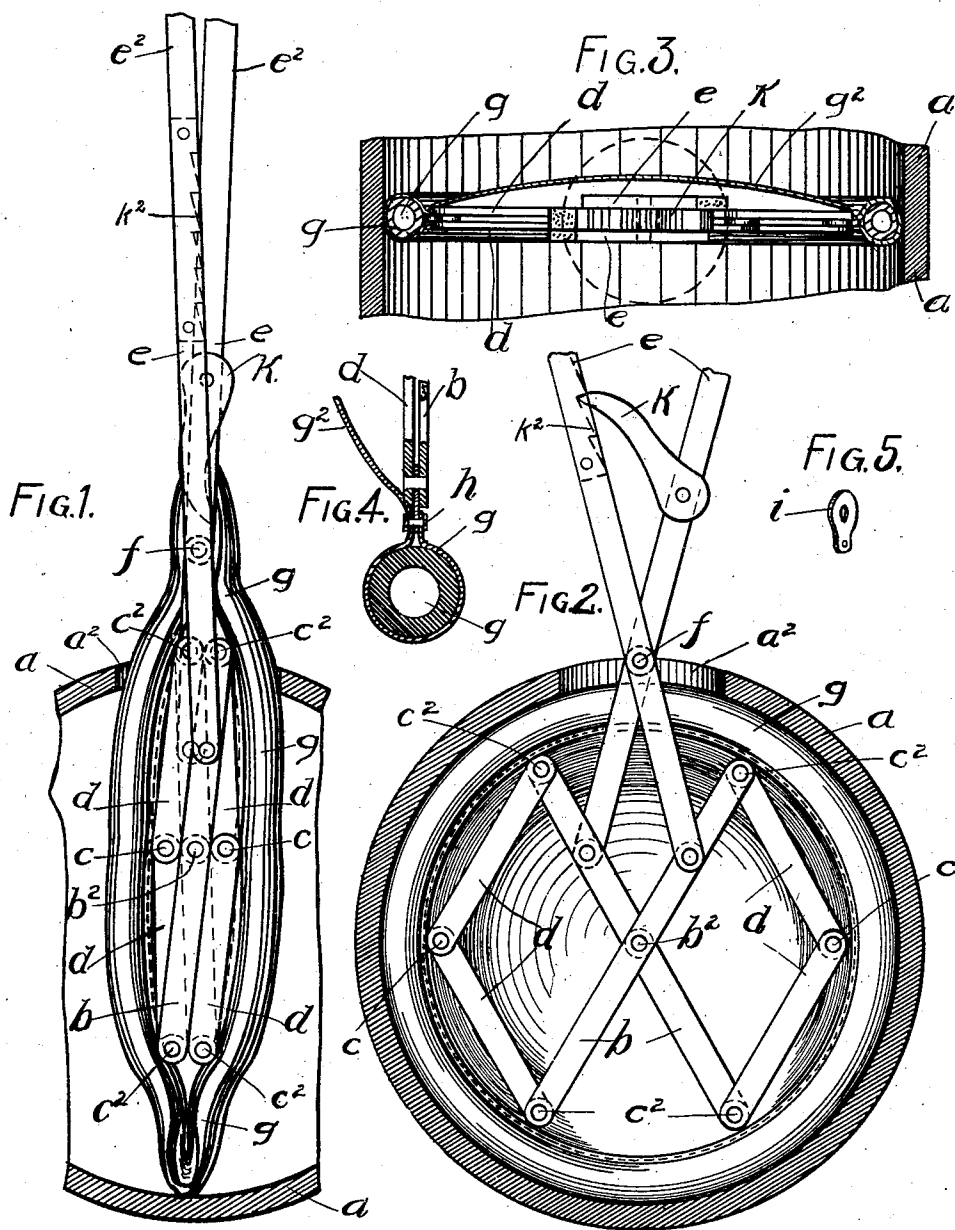
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A. POSTLEY.

DEVICE FOR STOPPING OR CLOSING GAS MAINS.

(Application filed Apr. 2, 1902.)

(No Model.)



WITNESSES

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DEVICE FOR STOPPING OR CLOSING GAS-MAINS.

SPECIFICATION forming part of Letters Patent No. 708,076, dated September 2, 1902.

Application filed April 2, 1902. Serial No. 101,044. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR POSTLEY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Devices for Stopping or Closing Up Gas-Mains, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide improved means for stopping or closing a gas-main while repairs are being made or couplings or connections effected, a further object being to provide a device of this class which is simple in construction and effective in operation and may be quickly and easily manipulated for the purpose specified.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a transverse section of a gas-main and showing my improved stopper or closure device inserted therein; Fig. 2, a similar view showing the device in operation; Fig. 3, a horizontal section of the construction as shown in Fig. 2; Fig. 4, a sectional detail on an enlarged scale, and Fig. 5 a perspective view of a detail of the construction which I employ.

In the drawings forming part of this specification I have shown at *a* a gas-main in the top of which is an opening *a*², and in the practice of my invention I provide a device of the class specified which comprises two cords, bars, or links *b* of the same length and pivotally connected at *b*² and the ends of which are provided at each side with supplemental pivoted links or bars *d*, the ends of which are pivotally connected at *c*, and these links or bars when connected as described form a toggle-lever frame which is adapted to be expanded and contracted by means of handle-levers *e*, which are pivotally connected at *f* and pivotally connected with the corresponding members or end portions of the links or bars *b*, as clearly shown in Figs. 1 and 2.

Around the frame of the device formed by

the links or bars *b* and supplemental links or bars *d* I place a strong rubber tube *g*, around which is secured a strong canvas covering *g*², which is circular in form and covers the entire frame at one side thereof, and the edge of this canvas covering after being passed around the tube *g* is secured by rivets or other suitable devices *h*, passed through clamps *i*, secured to the pivotal points *c* and *c*² of the links or bars *b* and *d*.

The normal position of the parts of this device is that shown in Fig. 1, and when it is desired to use said device so as to stop or close the gas-main *a* the said device is inserted through the opening *a*², and the frame thereof is expanded by grasping the projecting ends *e*² of the handle-levers *e* and pulling them apart and at the same time pushing inwardly thereon. This operation expands the framework of the device, as shown in Fig. 2, and causes the same to securely stop and close the main, the rubber tube *g* pressing on the walls thereof and the canvas cover *g*² fully closing the central portion of the main.

The cover *g*² may be composed of canvas, rubber and canvas, or any other suitable material, and when the parts are folded together, as in Fig. 1, the cover is also folded, as will be readily understood, and when the parts are in operation, as in Fig. 2, the said cover *g*² expands or is spread out, so as to fully close the main.

The tube *g* may be of rubber, rubber and canvas, or any other suitable material and may be made of such rigidity as to operate in the manner described, so as to perfectly close the main, or it may be provided with an internal spring, which will facilitate this operation.

One of the handle-levers *e* is provided at a predetermined point from their pivotal connection at *f* with a pivoted pawl *k*, which operates in connection with ratchet-teeth *k*² on the other handle-lever, and these ratchet-teeth may be formed in said handle-lever or in the separate pieces secured thereto, or any other suitable form of pawl or locking device may be substituted for the pawl *k*, and when the handle-levers are pulled out at their upper end, as shown in Fig. 2, this pawl will operate to hold said levers at any desired

point of separation, so that the stopper or closure device will remain in the expanded position within the main, so as to close the latter.

5 Any suitable means may be provided as an auxiliary device for closing the opening a^2 in the main a , if said means may be found necessary, and any other suitable devices may be employed for holding the handle-levers e 10 in the position shown in Fig. 2, and it will be apparent that my improved gas-main stopper or closure device may be made in different sizes, so as to be used in gas-mains of different diameters.

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

1. A stopper or closure device for gas-mains comprising a contractible and expansible 20 frame composed of main bars or links pivotally connected centrally thereof, supplemental bars or links pivotally connected with the ends of the main bars or links, and with each other, an elastic tube passing around and 25 connected with the frame thus formed, a flexible covering secured to said frame, and handle-levers pivotally connected with the main bars or links of said frame and with each other, substantially as shown and described.

30 2. A stopper or closure device for gas-mains comprising a contractible and expansible

frame composed of main bars or links pivotally connected centrally thereof, supplemental bars or links pivotally connected with the ends of the main bars or links and with each 35 other, an elastic tube passing around and connected with the frame thus formed, a flexible covering secured to said frame, and handle-levers pivotally connected with the main bars or links of said frame and with each other, 40 one of said handle-levers being provided with a pivoted pawl and the other with ratchet-teeth, substantially as shown and described.

3. In a device of the class described an expansible and contractible frame composed of 45 pivotally-connected main bars or links, supplemental bars or links pivotally connected with the ends of the main bars or links and with each other, an elastic tube inclosing said frame and secured thereto, a flexible cover- 50 ing inclosing one side of said frame and handle-levers connected with each other and with the main bars or links, substantially as shown and described.

In testimony that I claim the foregoing as 55 my invention I have signed my name, in presence of the subscribing witnesses, this 29th day of March, 1902.

ARTHUR POSTLEY.

Witnesses:

F. L. BRADLEY,
RICHARD SHEPARD, Jr.