

D. S. KELLAM.
SHUT-OFF FOR HOSE.
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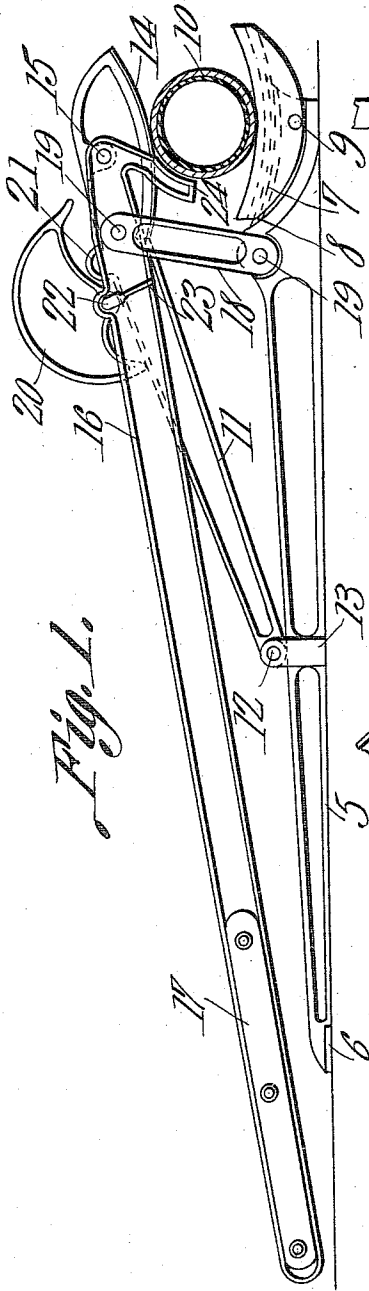


Fig. 1.

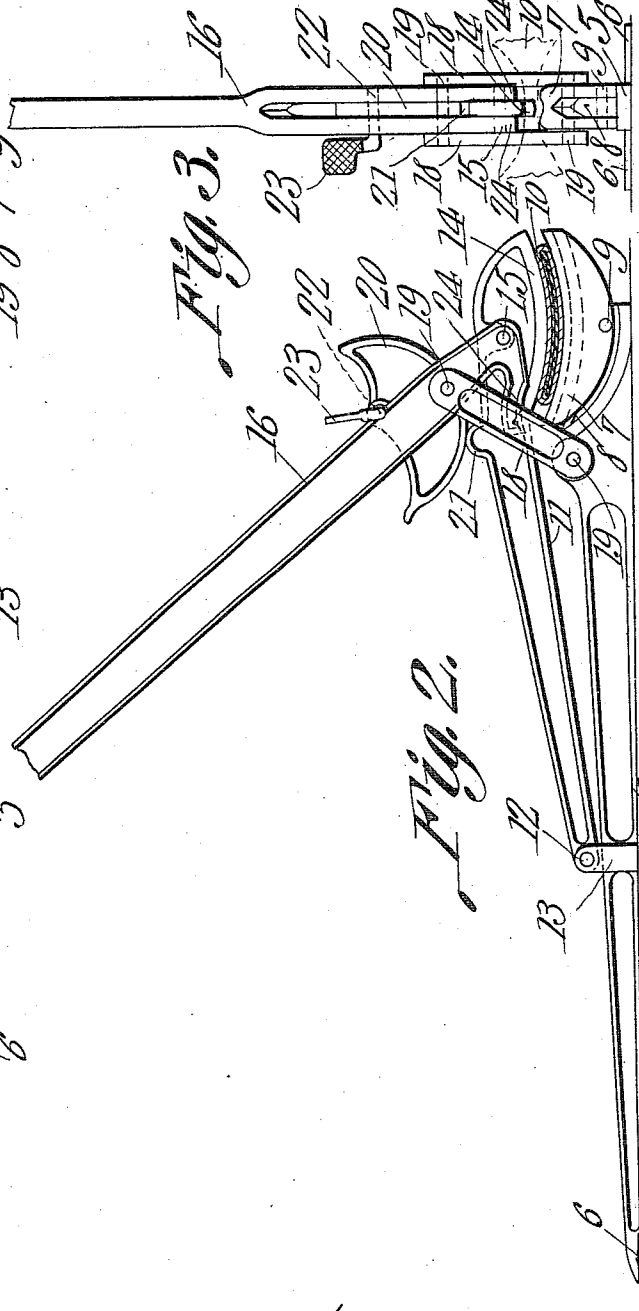


Fig. 3.

Fig. 2.

Witnesses

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SHUT-OFF FOR HOSE.

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To all whom it may concern:

Be it known that I, DAVID S. KELLAM, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented a new and useful Shut-Off for Hose, of which the following is a specification.

This invention relates to that class of devices for stopping the flow of water in a hose, characterized by a clamp between which the hose is received and pinched or compressed until a shut-off is effected.

It is the object of the invention to provide a clamp for the purpose stated which can be quickly and easily applied to a hose under high pressure, and without danger of injuring the hose, and also to provide means for locking the jaws of the clamp in operative position.

With these and other objects in view as will appear as the nature of the invention is better understood, the same consists in a novel construction and arrangement of parts to be hereinafter described and claimed, reference being had to the accompanying drawing forming a part of this specification, in which drawing,

Figure 1 is an elevation of the clamp applied to a hose, showing the position of the parts before the water is shut off. Fig. 2 is an elevation of the clamp showing the position of the parts when the water is shut off in the hose. Fig. 3 is an end view of the clamp.

Referring more particularly to the drawing, 5 denotes a foot bar or base having two horizontal extensions 6 at one end for the purpose of holding the device steady on the ground by the operator placing his feet on the extensions. The opposite end of the base carries one of the jaws 7 of the clamp. This jaw is a furcate block which straddles the end of the base, this portion of the base being reduced as indicated at 8. The jaw is pivotally secured to the base by a pin 9 passing horizontally through the part 8 and through that portion of the jaw straddling the same. The hose to be clamped will be placed on top of the block forming the jaw 7, the engaging surface thereof being made concave transversely, and also in the direction of its length, and having its corners on both sides curved as shown in Fig. 3, so that no sharp corners will be presented to the hose,

thereby eliminating all danger of cutting or otherwise injuring the same. The hose to be clamped is indicated at 10. The purpose of providing a pivotal support for the jaw 7 will be presently made clear.

The movable jaw is a bar 11 which is pivoted at one of its ends at 12 to ears 13 on the base 5. The free end of the bar forms the engaging portion of the jaw, the bottom of which is convexly curved as indicated at 14 to conform to the curved engaging surface of the jaw 7, the movable jaw being located above the said jaw 7. The engaging surface of the jaw 11 is also convexly curved transversely in order to conform to the transverse curve of the jaw 7 and thus prevent injury to the hose.

To the jaw 11, near its free end, is pivoted, as indicated at 15, a forked hand lever 16, the forked portion straddling the jaw. The free end of the hand lever is provided with a suitable grip 17. The lever 16 is connected near the pivot 15 to the base 5 by means of fulcrum links 18. These links are located on opposite sides of the lever, and the connection between the links and the hand lever, and between the base and the links is a loose one, said connection being pins 19 passing through said parts.

The hand lever 16 carries a locking device comprising a cam 20 which is pivotally mounted between the branches of the lever, and is adapted to engage a lug 21 formed on the back edge of the jaw 11. The cam is keyed or otherwise fastened to a rotatable pin 22 passing through the branches of the lever. One end of the pin is formed with an extension having a finger piece 23 to facilitate the rotation of the pin, such movement of the pin effecting the adjustment of the cam.

The lever 16, adjacent to the pivot 15, is formed with a laterally extending toe 24, each branch of the lever being thus formed. The terminal portions of the toes are curved, and are adapted to engage the hose for the purpose of properly centering the same on the jaw 7.

In operation, the hose 10 is placed on the jaw 7 as shown in Fig. 1, the cam 20 being placed in release position to permit the hand lever 16 to be brought downwardly to swing the jaw 11 away from the jaw 7. With the lever in this position, the toe 24 engages the

hose and centers the same on the jaw 7 directly above the pivot 9. The lever 16 is now swung upwardly, whereupon the jaw 11 is moved in the direction of the jaw 7, the upward swing of the lever being continued until the hose is pitched between the jaws sufficiently tight to shut off the flow of water therein. The cam 20 is now swung into engagement with the lug 21 as shown in Fig. 2, which locks the jaw 11. During this operation the operator's feet are resting on the extension 6, whereby the clamp is held steady on the ground. To release the jaw 11, the lever 16 is swung upwardly slightly, and the cam 20 is inverted, and thus disengaged from the lug 21, after which the lever may be swung downwardly to disengage the jaw 11 from the hose. The cam 20 allows perfect adjustment, and locks securely on any variation of hose thickness. The pivot of the jaw allows the same to rock forwardly and rearwardly which is necessary on account of the varying thickness of hose. When the hose is clamped, the curved surface of the jaw 11 conforms to the opposite surface of the jaw 7.

By the use of the herein described clamp it is possible to cut off the water on a line of hose without the time and trouble of tracing the line through a network of hose back to the engine or the hydrant, and it is also possible to remove a burst section of hose, and substitute another or additional section. The arrangement of the lever which operates the movable jaw is such that sufficient power is obtained to cut off the water at a high pressure, and after the water has been cut off, the movable jaw is locked until released, thus enabling the man operating the clamp to leave the same and engage in other work. The clamp may also be instantly applied to an empty hose, thus enabling the same to be more quickly carried to the place of use.

At the desired moment, the clamp is released, and the hose is then ready for use.

What is claimed is:

1. A hose shut off comprising a stationary jaw, a movable jaw pivotally connected with the stationary jaw, an operating lever pivotally connected with both of said jaws, and a toe rigidly connected with said operating lever for centering the hose between said jaws.

2. A hose shut-off comprising a base, a fixed and a movable jaw supported by the base, the movable jaw being pivotally connected thereto, a lever pivoted to the movable jaw, a fulcrum link connecting the lever to the base, and locking cam rotatable on the lever for locking the jaws together.

3. A hose shut-off comprising a base, a stationary and a movable jaw supported thereon, the movable jaw being pivotally connected to the base, a lever pivoted to the movable jaw, and having a toe portion located to engage the hose for the purpose of centering the same on the stationary jaw, and a fulcrum link connecting the lever to the base.

4. A hose shut-off comprising a base, a stationary and a movable jaw supported thereon, the movable jaw being pivoted to the base, a forked lever straddling the movable jaw, and pivotally connected thereto, a locking cam pivotally mounted between the branches of the lever, and adapted to engage the movable jaw, and a fulcrum link connecting the lever to the base.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

DAVID S. KELLAM.

Witnesses:

J. T. MEDLIN,

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