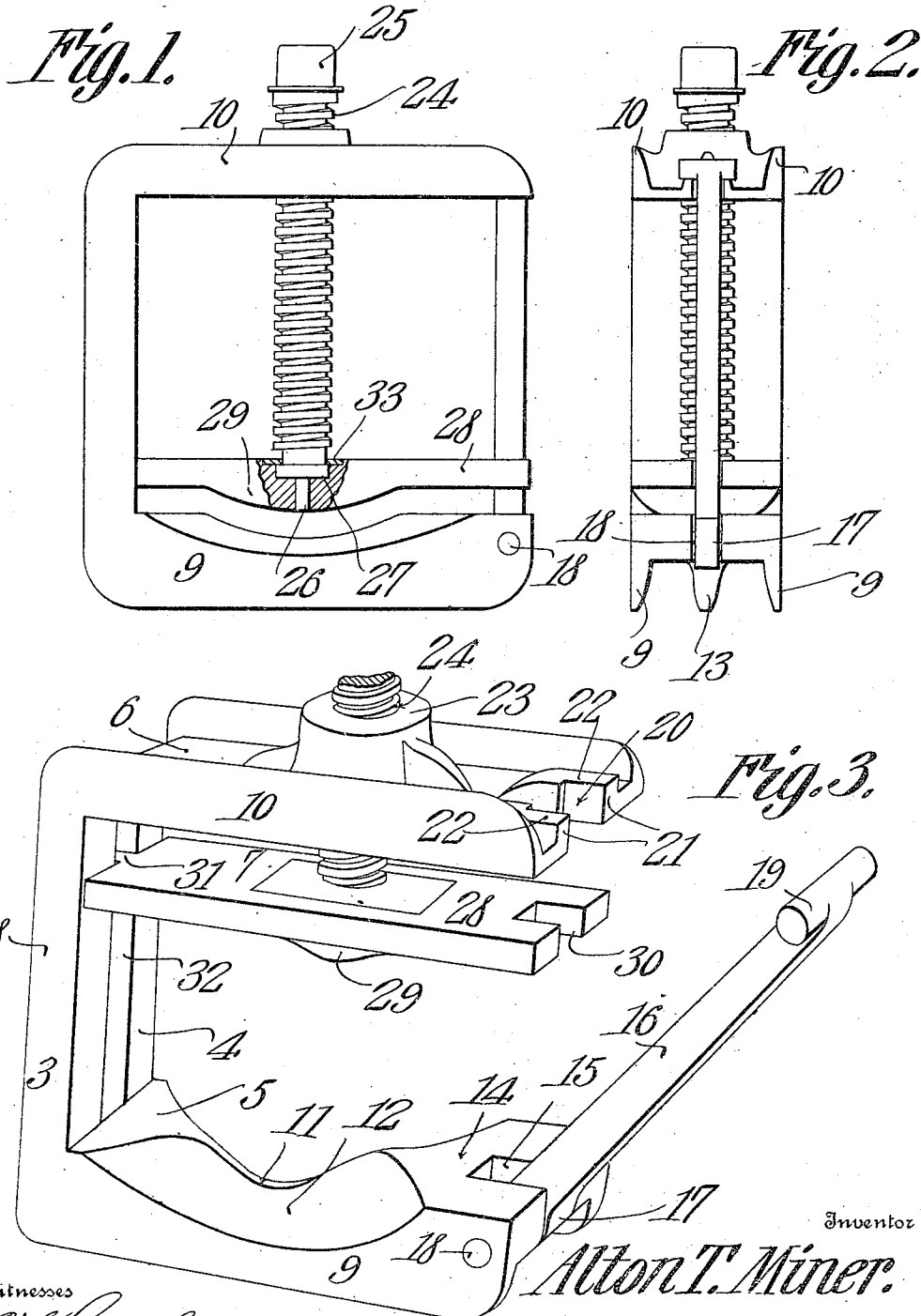


A. T. MINER.
HOSE GATE.

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HOSE-GATE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALTON T. MINER, a citizen of the United States, residing at New London, in the county of New London and State of Connecticut, have invented a new and useful Hose-Gate, of which the following is a specification.

My invention relates to hose gates, and has for an object to provide a device of this character which will compress a hose and shut off the water from any desired portion thereof in order to permit a splice to be made without closing the valve at the fire plug or engine.

Another object is to provide a device of this character in which there are no keys, gears or similar locking devices employed to impede the work of the firemen and injure the clamped portion of the fire hose as in the usual forms of hose gates.

Still another object is to provide a device of this character which may be applied to and released from operative position by throwing the pivoted side in or out of engagement with the top frame thus providing a quickly adjustable hose gate that is almost instantaneous in operation.

A further object is to provide a device of this character in which the pivoted side automatically locks when placed in operative position and can be quickly and easily released from this position without the use of a key, wrench or similar tool.

With these advantages and other objects in view which will appear in the following specification and be set forth in the claims, my invention embraces the structure illustrated in the accompanying drawing, in which,

Figure 1 is a side elevation of a hose gate, constructed in accordance with my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a perspective view of the hose gate showing the locking device in a disengaged position.

The hose gate embodies a frame and a movable jaw, one side of which is tongued for engagement with the stationary side wall of the frame and the other side of which is grooved and straddles the movable side wall of the frame.

In a more detailed description of my invention wherein like characters of reference designate similar parts wherever they occur in the views shown, 3 designates the

frame in general. The frame 3 is substantially C-shaped in contour, and comprises a shank constituting a rear wall 4, from the lower end of which extends an arm forming the stationary clamping jaw 5 of the gate, and from the upper end of which extends in the same direction as the clamping jaw a supporting arm 6 from which depends the movable clamping member 7 of the gate. From the lateral edges of the shank, clamping jaw, and supporting arm of the gate, rise vertical flanges 8, 9, and 10 which form contact edges for the gate to rest upon and also serve as a housing to prevent damage to the movable parts of the gate which have working faces terminating in the above mentioned parts. The stationary clamping jaw 5 is depressed intermediate the ends to form a concave working face 11, the upper surface of which is beveled adjacent the lateral edges to form inclined surfaces 12 that conform to the contour of the compressed portion of the supported hose. The terminal flanges 9 and medial flange 13 which project downward from the lower surface of the jaw elevate the working face of the jaw above the ground when in operative position in order to permit the compressed portion of the hose to conform to the inclined surfaces of the said working face whereby to facilitate the quick action of the gate. The jaw is longitudinally grooved adjacent the outer end 14 to form a seat or bearing 15 for the movable front wall 16. The front wall 16 is in the nature of a rod or bar, the lower end of which terminates in an expanded head 17 of a size to engage and snugly fit the inner walls of the bearing 15, and having an annular opening formed therein to receive a pivot pin 18 positioned transversely the bearing and serving to connect the front wall 16 to the stationary jaw 5 in a hinge joint. The opposite end of the bar 16 terminates in a transversely disposed locking lug 19 of a size to loosely fit between the flanges 10 of the supporting arm 6.

Formed in the outer end of the supporting arm 6 is a groove 20 adapted to receive the front bar 16 and disposed on either side of this groove are projections 21, the upper edge 22 of which inclines outwardly and upwardly, and are adapted to slidingly fit the lower surface of the locking lug 19 which is designed to spring over the highest portion of these projections and be yield-

ingly held thereon in order to permit the pivoted front bar to be held in closed position when once the locking lug is seated on the projections. As will be seen from this construction, the front bar 16 is hinged to the stationary jaw and is adapted to lockingly engage the supporting arm, and also that this bar may be swung into operative position and removed from the same without the use of a key, wrench or similar tool.

Positioned intermediate the end of the supporting arm is an enlargement 23 provided internally with screw threads to engage a feed screw 24, one end of which projects through the supporting arm and terminates in a reduced end 25 to secure a hand wheel or similar lever, and the opposite end of which terminates in a reduced end constituting a journal 26, the purpose of which will presently appear. The feed screw is circumferentially enlarged adjacent the journaled end 26 to form a swivel head 27 for engagement with the sliding jaw 28. The sliding jaw 28 is substantially a flat piece of metal, the lower face of which is bulged downwardly adjacent the ends to form a convex working face 29 to work in conjunction with the concave working face of the stationary jaw. One end of the sliding jaw has formed therein a slot 30 of a size to slidably fit the front bar 16, and the other end is provided with a tongue 31 to engage and slidably fit the longitudinal slot 32 formed in the shank of the frame. It is thus seen that one end of the movable jaw straddles the front bar and the other end engages the grooved rear wall of the gate, the object of this construction being to enable the front and rear walls to perform the function of guides for the movable jaw in its sliding movements. The sliding jaw engages the feed screw in a swivel connection which may be formed in any desired manner, the connection in this instance being effected by forming a recess in the sliding jaw adapted to engage the swivel head of the feed screw, and having an annular opening to form a bearing for the journal 26 of the feed screw. The feed screw is retained in the recessed sliding jaw by a plate 33 embedded in the upper surface of the sliding jaw and having a central opening adapted to engage the shank of the feed screw adjacent the swiveled head 27.

In operation the pivoted front bar is swung outward upon the pivot thus opening the frame. The desired portion of the hose is now placed in between the jaws after which the front bar is swung back to its initial position, the locking lug springing over the projections carried by the slotted end of the upper arm of the frame and locking the bar in position without further attention. The hand wheel or lever is rotated in the proper direction for advancing the

movable jaw toward the fixed jaw of the frame. In this manner the hose is compressed or pinched between the interfitting working faces of the jaw until the flow of water is cut off. A new splice may now be made or the section of the hose from which the water has been cut off may be carried up a ladder, thus obviating the necessity of a water tower. All this may be done without shutting off the valve of the fire plug or engine and by the simple construction of the gate no time is lost in its application or removal from a fire hose.

From the foregoing description, taken in connection with the accompanying drawing, it is thought that the construction and operation of the invention will be easily understood without a more extended explanation, it being understood that various changes in the form, proportion and minor details of construction may be made without sacrificing any of the advantages or departing from the spirit of the invention.

What is claimed is:—

1. A hose gate having a frame composed of a vertical side portion terminating at its opposite ends in laterally extending bars constituting a top and bottom respectively and having a movable side portion pivoted at one end on said bottom and terminally adapted at the other to engage said top, a movable jaw adapted to slidably fit said side portions, and means for locking said movable side in operative position.

2. A hose gate having a frame composed of a vertical side portion terminating at one end in a laterally extending bar having an upwardly inclined working face, and at the opposite end in a laterally extending bar having an enlargement provided with screw threads, a movable bar pivoted on one of said arms and terminally adapted to engage the other, a feed screw working in said enlargement, a movable jaw swiveled on said feed screw and adapted to slidably fit said vertical side portion and movable bar, and locking means carried by one of said arms for yieldingly holding said movable bar in operative position.

3. A hose gate having a frame comprising a vertical side portion and horizontal top and bottom portions, said bottom portion having a depression formed intermediate the ends serving as a support for the hose, said top portion having an enlargement provided with internal screw threads, a movable bar pivoted at one end on said bottom portion and terminating at the other in a transverse locking lug adapted to lockingly engage said top portion, a feed screw working in said threaded enlargement, a movable jaw swiveled on said feed screw and having a bulged working face adapted to work in conjunction with said depressed working face, and projections carried by the top portion of the

frame adapted to seat said locking lug whereby to hold the parts locked in position.

4. A hose gate having a frame comprising a side bar terminating at the lower end in
 5 a horizontal fixed jaw having a working face the lateral edges of which are beveled to conform to the outline of and support a
 10 hose, and terminating at the upper end in a laterally extending arm having a slotted end and provided with a threaded opening
 15 intermediate the ends, a movable bar pivoted on said fixed jaw and operating to engage said slotted arm and form a closure for said frame, a feed screw working in said threaded
 20 opening, a movable jaw swiveled at the lower end of said feed screw terminally adapted to engage said side bar and said movable bar and be guided thereon in its sliding movement.
 25 5. A hose gate comprising a frame having a slotted side bar terminating at one end in a fixed jaw having a depressed working face, and at the other in a laterally projecting arm having a screw threaded opening disposed intermediate its ends and terminat-

ing in a slotted end provided with a projection on either side of said slot, the upper surface of said projections being inclined outwardly and upwardly, a rocking bar pivoted on said fixed jaw and terminating
 30 in a transverse locking lug adapted to spring over and lockingly engage said upwardly inclined projections, a feed screw working in said screw threaded opening, and a movable jaw having a bulged working face
 35 adapted to work in conjunction with said depressed working face, and having at one end a tongue to engage and slidingly fit said slotted side, and having at the opposite end a groove to slidingly fit said locking bar
 40 whereby to be guided thereon in its sliding movement.

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

ALTON T. MINER.

Witnesses:

O. C. BRIGGS,
 HELENA M. GRAY.