(Model.)

2 Sheets—Sheet 1.

M. JACOBS.

LOCK.

No. 449,077. Patented Mar. 24, 1891.

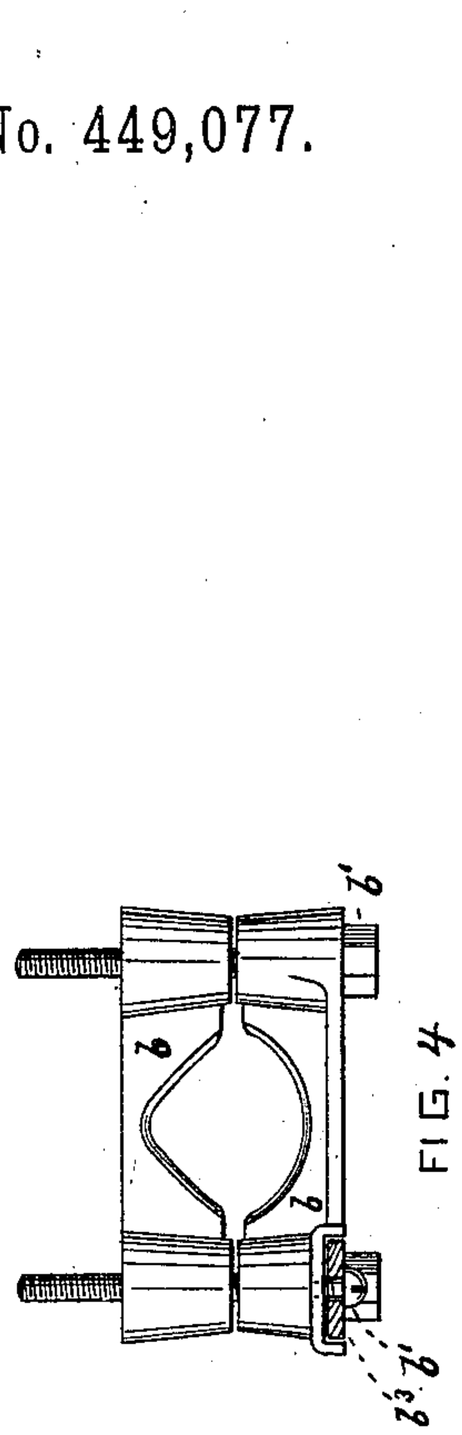

FIG. 4

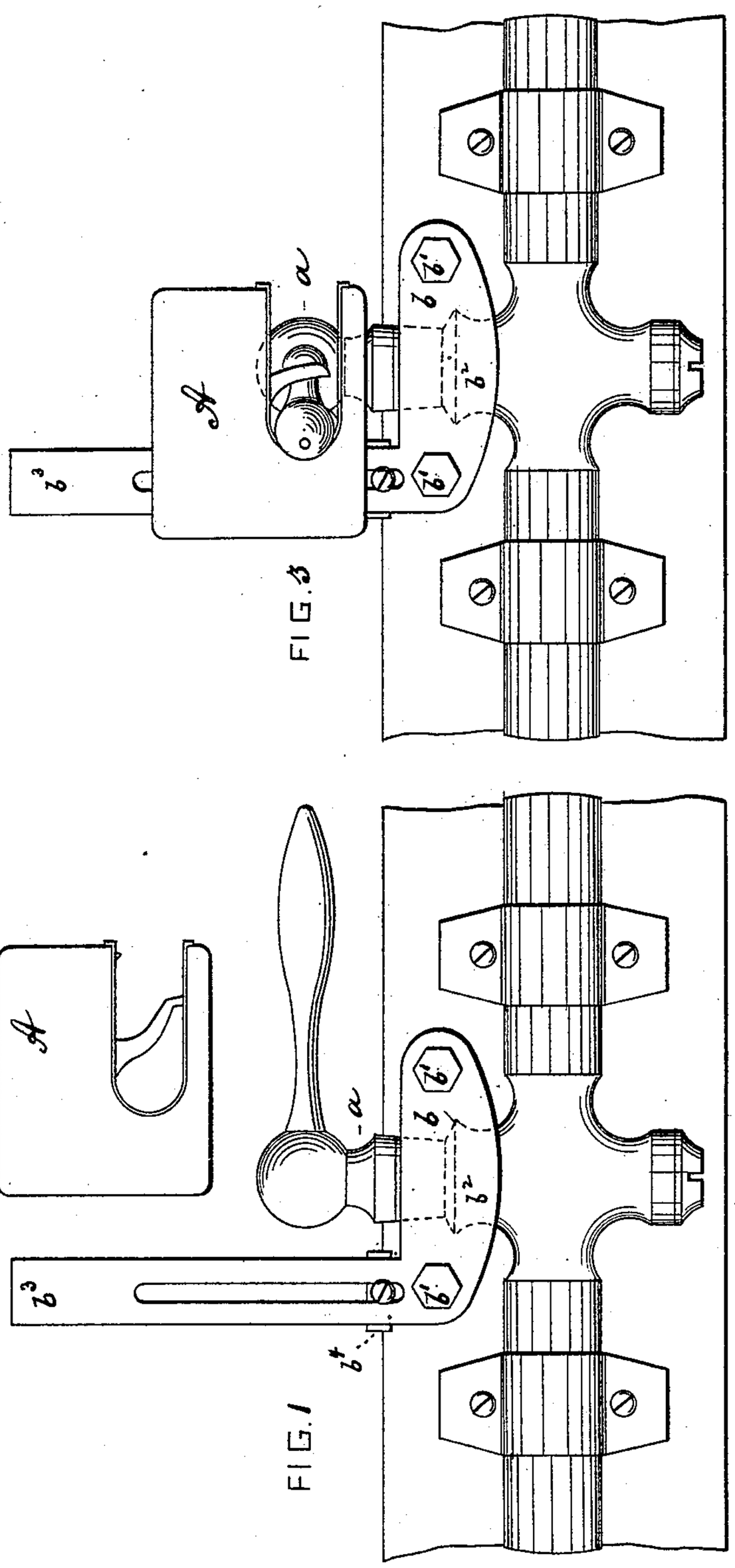

FIG. 3

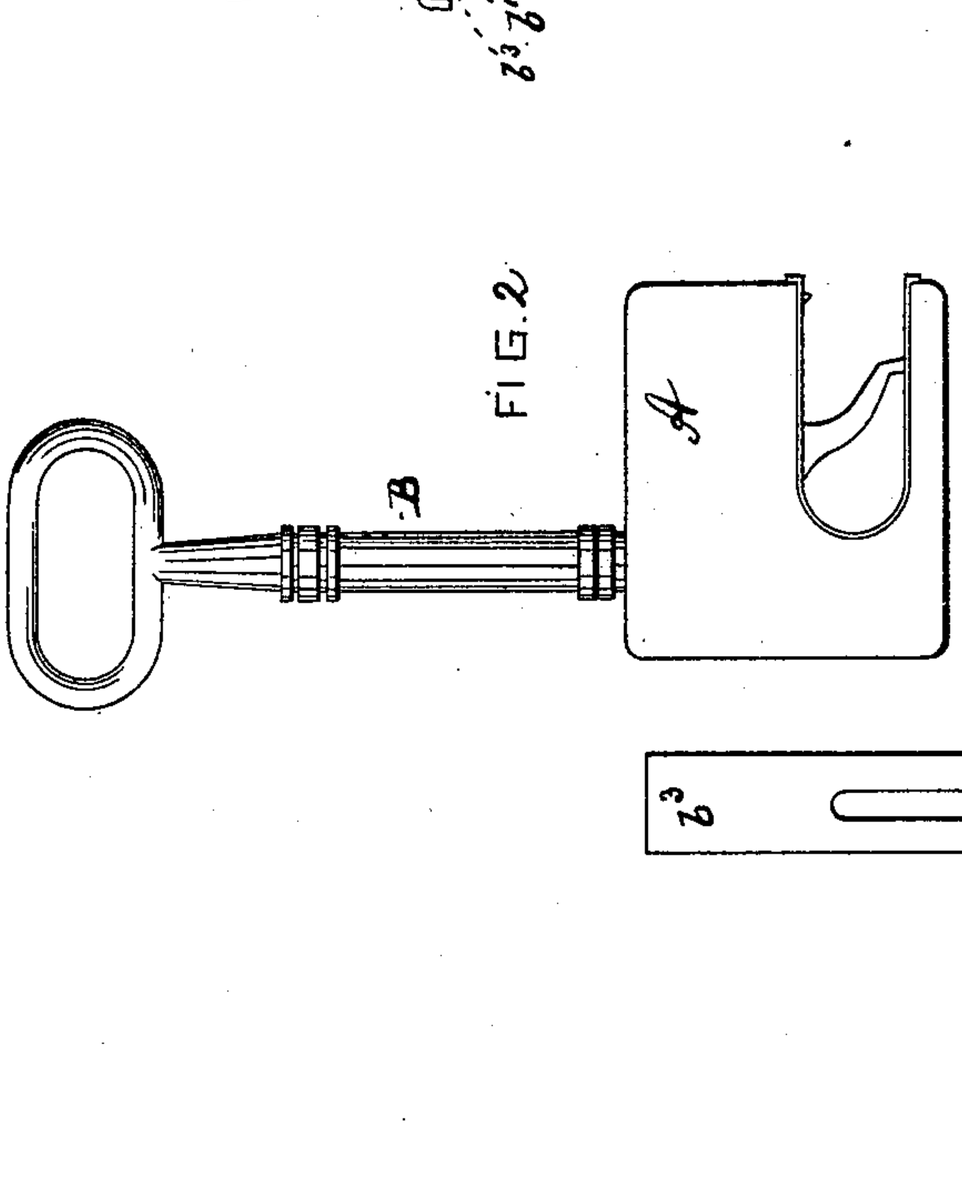

FIG. 2

FIG. 1

WITNESSES

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INVENTOR

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by his attorneys

Roeder & Briesen

(Model.) 2 Sheets—Sheet 2.

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LOCK.

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FIG. 5

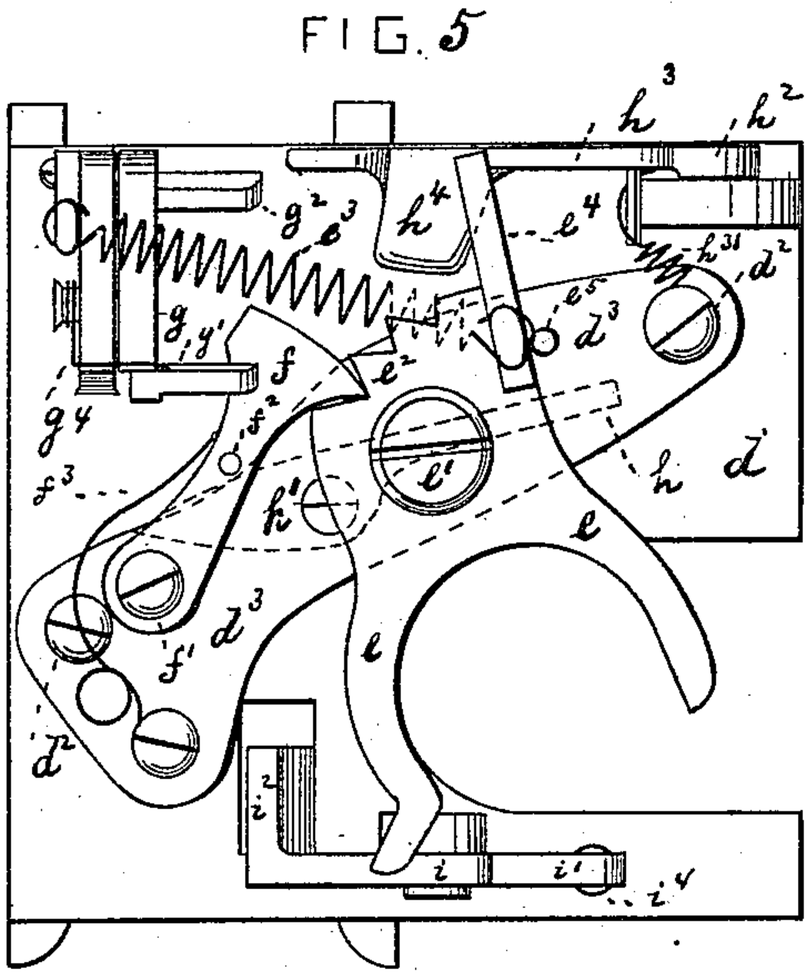
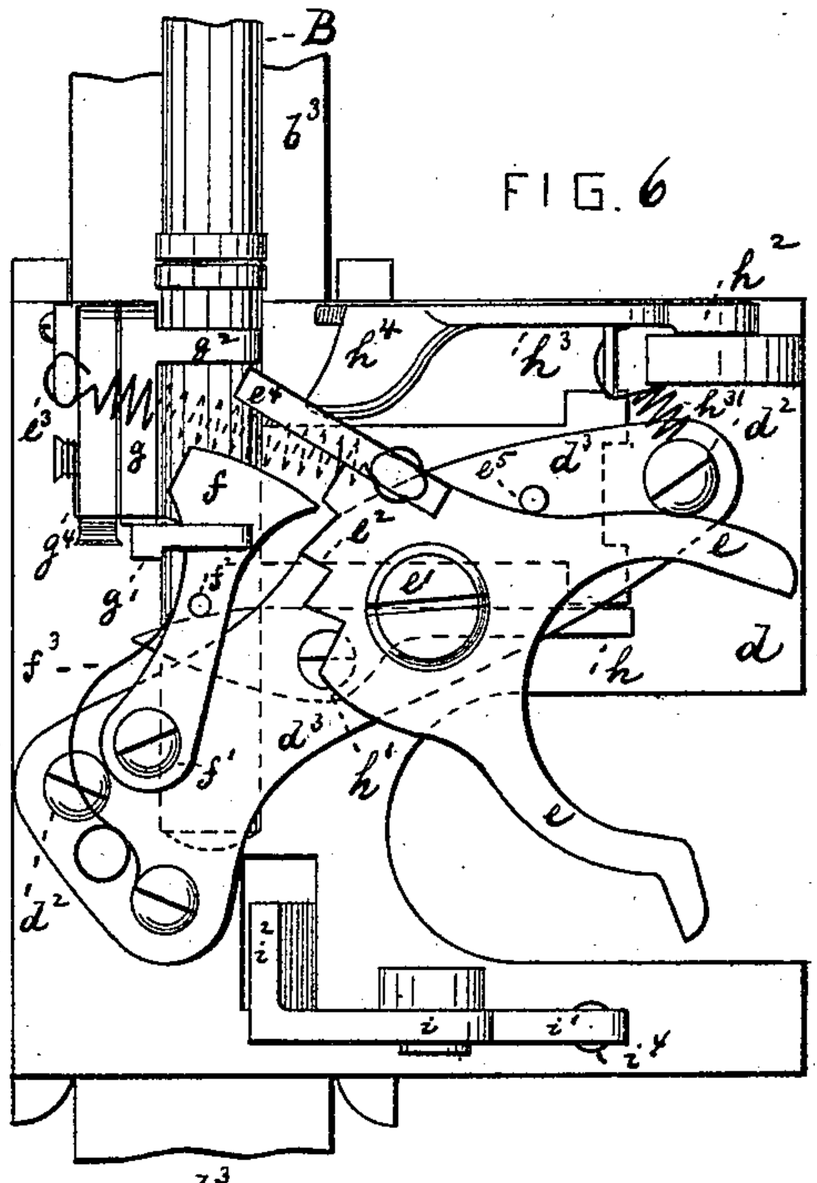


FIG. 6



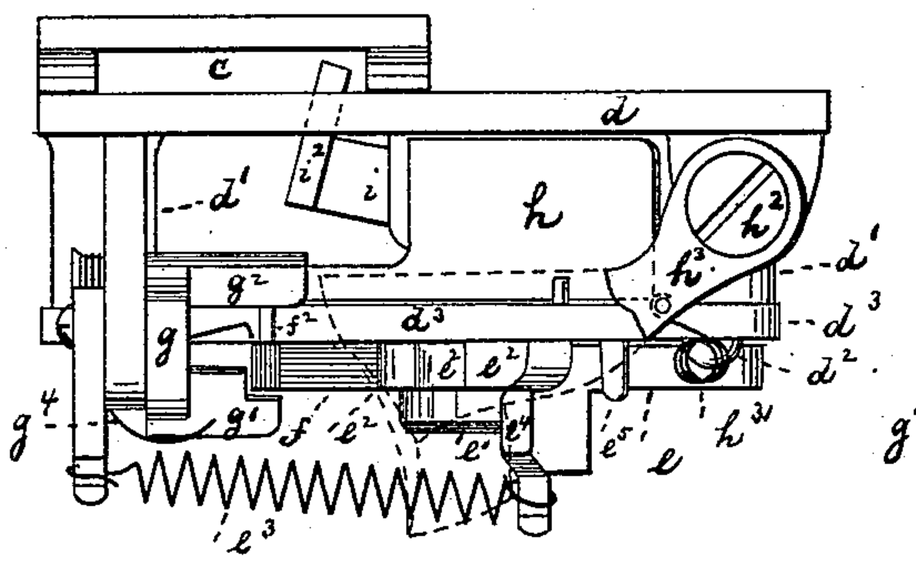


FIG. 7

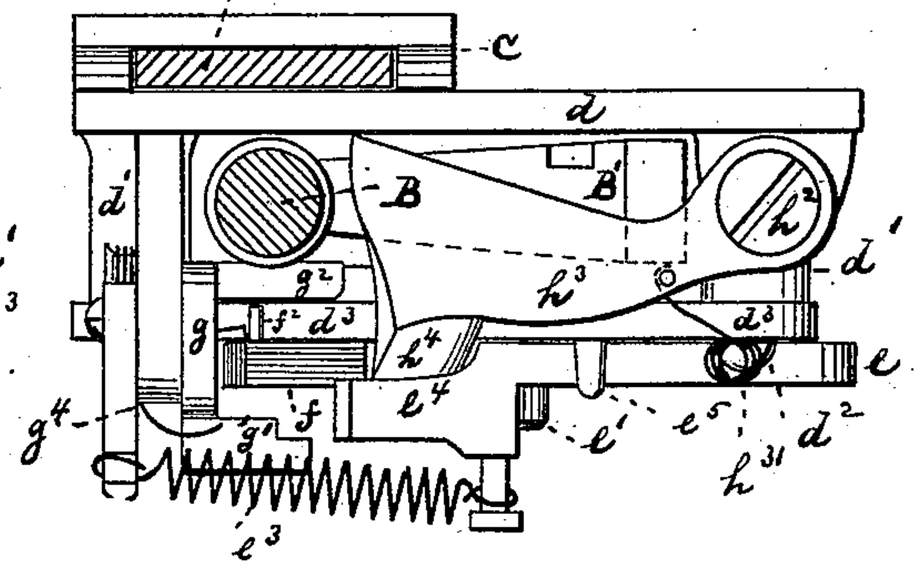


FIG. 8

WITNESSES

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UNITED STATES PATENT OFFICE.

MAURICE JACOBS, OF NEW YORK, N. Y., ASSIGNOR TO ESTHER JACOBS, OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 449,077, dated March 24, 1891.

Application filed July 2, 1890. Serial No. 357,481. (Model.)

To all whom it may concern:

Be it known that I, MAURICE JACOBS, of New York city, New York, have invented an Improved Lock, of which the following is a specification.

This invention relates to a lock of novel construction that will confine a store or office key as long as a water or other cock is not turned off.

The invention consists in the various features of improvement more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of the water-faucet, showing it open and the lock removed. Fig. 2 is a side view of the lock removed, confining the key. Fig. 3 is a side view of the faucet, showing it closed and locked. Fig. 4 is a top view of the bracket with the arm b^3 in section. Fig. 5 is a side view of the lock, (face-plate removed,) showing it closed; Fig. 6, a similar view showing it open. Fig. 7 is a top view of Fig. 5, and Fig. 8 a top view of Fig. 6. Figs. 5 to 8 are drawn on an enlarged scale.

The letter a represents a cock that controls the admission of water or of other matter that is to be shut off before the store is closed for the night. This cock is surrounded by two brackets b, that are screw-tapped and are adapted to be drawn together by screws b'. When so drawn together, they snugly embrace the socket b^2 that contains the cock-plug. One bracket b is provided with an upwardly-projecting arm b^3, upon which the lock A is free to slide. The arm b^3 is preferably slotted lengthwise, and is provided with a slide b^4 by which the lock, when slipped over the arm, is supported. By adjusting the slide the elevation of the lock is likewise adjusted, and thus the bracket can be adapted to faucets of different heights.

The bracket with the arm constitutes a fixture of the faucet.

The lock A is provided with a tubular socket c, open on top and bottom, that embraces arm b^3, Fig. 8, when the lock is slipped upon the bracket.

The mechanism for locking either the key or faucet—*i. e.*, the mechanism constituting the lock proper—is illustrated in Figs. 5 to 8, and is as follows: From the back plate d of the lock there project forwardly posts d', to which is secured by screws d^2 a front plate d^3. To this front plate there is pivoted by pivot e' a fork e, adapted to embrace the handle of cock a. When the cock is closed and is embraced by this fork, it cannot be opened unless the fork is free to be swung upward or into the position shown in Fig. 6; but the fork is locked when swung down and cannot be swung up, excepting by the introduction of the store-key B into the lock.

The mechanism for causing the motion of the fork is as follows: The rear edge of fork e is provided with teeth e^2, engaged by a pawl f. This pawl is pivoted to plate d^3 by pivot f'. When the pawl engages the teeth e^2, it prevents the fork from turning; but when the pawl releases the teeth the fork may be turned up. The pawl f is held against the teeth e^2 by one arm g' of a pivoted stop g, the second arm g^2 of which is in the way of the shank of key B as the latter is introduced into the lock. Thus the key-shank oscillates the stop g (against action of spring g^4) and lifts the arm g' up to release the pawl f, Fig. 6. Below the key-bit B′ there is a lever h, pivoted to plate d^3 at h' and bearing with its tail against a pin f^2, projecting rearwardly from pawl f. Thus when the key is introduced its stem will first release the pawl, and then its bit B′ will positively raise the pawl out of the teeth e^2 of fork e against the action of a spring f^3. The fork is now entirely unlocked, and may be thrown into its open position by revolving the faucet a by hand, assisted by a spring e^3, that serves to prevent loose motion. A stop e^5 limits this motion of the fork. At its upper end the fork e carries a tail-piece e^4, that engages a curved projection h^4 on a locking-plate h^3, pivoted in a horizontal position at h^2 over the path of the key-bit B′.

The operation of the device as thus far described is as follows: In the morning the lock is in the position shown in Fig. 5. It is upon the bracket-arm b^3, and the faucet a is closed and locked in position by the fork e, which is turned down. The porter after having opened the store wants to turn on the water. For this purpose he must press the store-key B into the lock A. By so pressing the key he

vibrates the stop g to release the pawl and swings the pawl backward by bearing upon lever h, as described. Thus the fork e is liberated, and the faucet may be turned on by hand. The turning on of the faucet causes the fork to be swung into its horizontal or open position, Fig. 6; but this motion of the fork has by the engagement of the parts e^4 h^4 caused the locking-plate h^3 to be swung over the path of key-bit B', so as to prevent the withdrawal of the key. Now the key, intimately united with the lock A, is lifted off the arm b^3 and hung up in the store. In the evening, when the key is to be again used for locking the store it cannot be withdrawn from the lock before the water is turned off. To effect this the lock is slipped upon the bracket and the faucet is by hand closed to turn the fork down. The turning down of the fork will release the plate h^3, and the latter will be swung out of the way of the key-bit by a spring h^{31}. The key is now withdrawn, and by its withdrawal it will permit the spring f^3 to throw the pawl f into the teeth e^2 of fork e. At the same time the spring g^4 throws the stop-arm g' against pawl f, so as to lock the fork in the position shown in Fig. 5 and to lock the faucet a in its closed position. The key is now of course free to be used for locking the store.

In order to prevent the key being released by a simple closing of the fork when the lock is off the bracket, I have placed a stop in the way of the fork that is not thrown back unless the lock is actually slipped upon the bracket. This stop consists of a lever i, one arm i' of which is in the way of the fork and prevents it from being closed, while its other arm i^2 enters the socket c. As soon as the lock is slipped upon the arm b^3 such arm, by occupying the socket c, will throw the arm i^2 out and consequently the arm i' in. Thus the arm i' is no longer in the way of the fork, and the lock can be operated as described. The stop i does not in any way interfere with the opening of the fork, as the arm i' is beveled, and the fork will slip readily over it and press it down against the action of a spring i^4 while the water is being turned on.

What I claim is—

1. The combination of a bracket adapted to straddle a faucet, with an arm projecting upwardly therefrom and a lock adapted to slide on the arm, substantially as specified.

2. The combination of sectional bracket b with the screws b', adapted to draw it together, and with slotted arm b^3, having slide b^4, and with a lock adapted to slide on the arm, substantially as specified.

3. The combination of a bracket with a lock consisting of a pivoted fork e, a pawl f, and a locking-plate h^3, the pawl being adapted to lock the fork and the locking-plate being adapted to lock the key, substantially as specified.

4. The combination of bracket-arm b^3 with a lock having socket c, pivoted fork e, and a lever i, one arm i' of which is in the way of the fork and the other arm i^2 of which is adapted to enter the socket, substantially as specified.

5. The combination of a bracket with a lock consisting of a pivoted fork e, a stop g, a plate h, a pawl f, engaged by such plate, and a locking-plate h^3, engaged by the fork, substantially as specified.

MAURICE JACOBS.

Witnesses:
F. v. BRIESEN,
A. JONGHMANS.