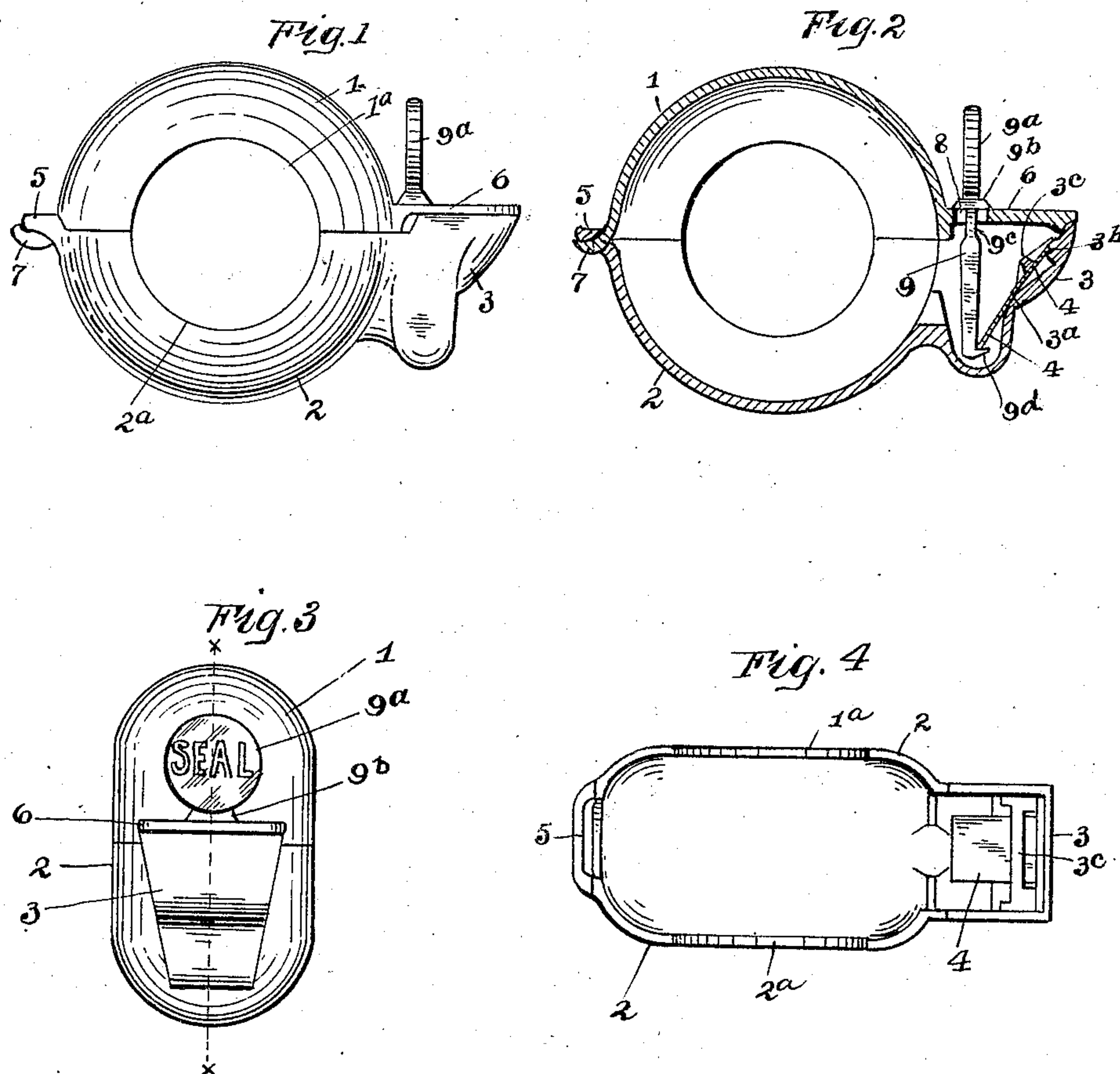


No. 785,526.

PATENTED MAR. 21, 1905.

R. D. SIMPSON.
SEAL LOCK FOR PIPE COUPLINGS.

APPLICATION FILED JULY 20, 1903.



WITNESSES:
S. E. Ward
A. L. Phelps

INVENTOR
Robert D. Simpson
BY
C. C. Shepherd
ATTORNEY

UNITED STATES PATENT OFFICE.

ROBERT D. SIMPSON, OF COLUMBUS, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE COLUMBUS METER SEAL MANUFACTURING COMPANY, OF COLUMBUS, OHIO, A CORPORATION OF OHIO.

SEAL-LOCK FOR PIPE-COUPPLINGS.

SPECIFICATION forming part of Letters Patent No. 785,526, dated March 21, 1905.

Application filed July 20, 1903. Serial No. 166,243.

To all whom it may concern:

Be it known that I, ROBERT D. SIMPSON, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Seal-Locks for Pipe-Couplings, of which the following is a specification.

My invention relates to the improvement of seal-locks for pipe-couplings, and has particular relation to seal-locks for inclosing the couplings of gas and water conducting pipes which lead to meters.

The objects of my invention are to provide a sealing device of this character of improved construction and arrangement of parts which may be readily and effectively locked about pipe connections or couplings and prevent access being gained thereto by unauthorized persons.

A further object of my invention is to provide my improved seal-lock of comparatively simple and inexpensive construction and to produce other improvements the details of construction of which will be more fully pointed out hereinafter.

These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of my improved coupling, sealing, and locking device. Fig. 2 is a central vertical section of the same on line *xx* of Fig. 3. Fig. 3 is a view in elevation at right angles with that shown in Fig. 1, and Fig. 4 is a plan view of one section of the device.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I employ two cooperating casing-sections, as indicated at 1 and 2. The half-round body of each of these sections is substantially semicylindrical or of concavo-convex form in cross-section. The sections 1 and 2 on opposite sides are provided with half-circular recesses 1^a and 2^a, which result when said sections are brought together in the formation of oppositely-located circular openings which are adapted to receive those portions of the gas or water pipes which

are united by a union or coupling, the latter being inclosed within the body of the device 50 formed by said sections. In the construction of the section 2 I form therewith a peripheral extension or socket-like projection 3, which communicates with the section-channel or interior. The extension 3 has its outer end portion so formed as to result in the production 55 of a transverse internal shoulder 3^a. In its upper and outer portion the extension 3 is formed with a transverse internal shoulder 3^b, while between the latter and the shoulder 3^a is provided a fixed transverse bar 3^c. 4 represents a locking-spring strip, which strip is inserted between the outer wall of the extended portion 3 and the under side of the bar 3^c, the upper end of the strip abutting against 65 the shoulder 3^b. Below the bar 3^c the spring-strip bears against the shoulder 3^a and extends into the lower portion of the casing-section extension 3. Extending from the section 2 on that side which is opposite the extension 70 3 is a keeper or yoke-like projection 5.

In constructing the remaining section 1 I form with one end thereof a horizontal projecting lip 6, which when the sections 1 and 2 are brought together is adapted to bear 75 upon and close the mouth of the extension 3 of the section 2. On the opposite side or end of the section 1 I provide a downwardly and outwardly extended lug 7, which, as indicated in the drawings, is adapted to assist in the 80 interlocking of the two sections by being inserted, as shown, through the keeper or yoke-like projection 5 of the section 2. In the upper side of the lip projection 6 of the section 1 and adjacent to the body of the latter I form 85 an opening 8, through which is adapted to pass the greater portion of a sealing-key 9. In the construction of this key the head or upper end portion thereof is preferably of an enlarged or disk-like form, such as is indicated 90 at 9^a. At the junction of the key-body and its enlarged head 9^a I provide an enlargement 9^b, which is adapted, as shown, to bear upon the upper side of the lip 6. Immediately below this enlargement 9^b the key 9 is, as indicated 95 at 9^c, reduced in thickness, so as to

permit the head 9^a being more readily broken from the body of the key. At its lower end the key is formed with an outturned hook-like termination 9^d, which when the key is inserted through the opening 8 in the lip 6 is adapted to come into contact with the lower portion of the inclined spring-strip 4 and to temporarily depress the latter. When, however, the lower end of this outturned end of the key has passed the end of the spring, it is obvious that the lower end of the latter will again spring upward to its normal position, thus resulting in engagement of the end of said spring-strip with the end of the key and in locking the key against withdrawal. In this manner the key is made to lock the sections 1 and 2 in desirable engagement with each other, and access to the union or coupling, which is inclosed by the sectional casing, as described, can only be had by breaking the head or seal off the frangible key.

From the construction shown and described it will be seen that a comparatively simple and inexpensive seal-lock is provided which will be of great utility in inclosing the couplings or unions of pipe-joints.

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

1. In a seal-lock for pipe-couplings, the combination with two coöperating semicylindrical sections having means for engagement on corresponding ends, one of said sections having a hollow extension and an inclined spring-strip fixed therein, of a locking-key having a hook termination, said key adapted to pass through a projection on one of said sections and to have its inner end engage the end of said spring-strip in the extension of the remaining section, substantially as specified.

2. In a seal-lock for pipe-couplings, the combination with the lock-section 2 having a yoke-like projection at one end and having a hollow extension at its opposite end, an inclined spring-strip secured in its upper end portion within said extension and having its free end depending in the lower portion of said extension, of a semicylindrical section 1 having a lug 7 projecting from one end and a lip 6 projecting from the opposite end, said lip adapted to fit over the mouth of the extension 2 and having an opening, and a locking-key having an enlarged head, said key

adapted to be inserted through said lip-opening and to engage the lower end of the spring-strip, substantially as specified.

3. A seal-lock for pipe-couplings and the like, comprising a two-part casing adapted to fit around the coupling, the two members of the casing having a jointed connection on one side of the coupling, one of said members having secured thereto on the other side of the coupling a spring, and the other member carrying a frangible seal member adapted to engage with said spring, substantially as described.

4. A seal-lock for pipe-couplings and the like, comprising a two-part casing adapted to fit around the coupling, the two members of the casing having a jointed connection on one side of the coupling, one of said members having secured thereon on the other side of the coupling a spring-keeper, and a frangible seal member in the form of a key adapted to be inserted through the other member after the two members are in position and to engage said spring-keeper to lock the parts together, substantially as described.

5. In a seal-lock of the character described, a two-part casing adapted to fit around the coupling, one of the members being provided with a spring-keeper, the other member being provided with an opening adjacent to said keeper, and a frangible seal member in the form of a key, having a body adapted to be inserted through the said opening and to engage the spring-keeper, and a head which will not pass through said opening, substantially as described.

6. In a seal-lock of the character described, a two-part casing adapted to fit around the coupling, one of the members being provided with a spring-keeper, the other member being provided with an opening adjacent to said keeper, and a frangible seal member in the form of a key, having a body adapted to be inserted through the said opening and to engage the spring-keeper, and a head which will not pass through said opening, said key being weak at the junction of the head and body to cause the key to break at that point, substantially as described.

ROBERT D. SIMPSON.

In presence of—

C. C. SHEPHERD,
W. L. MORROW.