

A. H. Clear
Valves & Port Stopper.
Nº 25,094. Patented Aug 16, 1859.

Fig: 1.

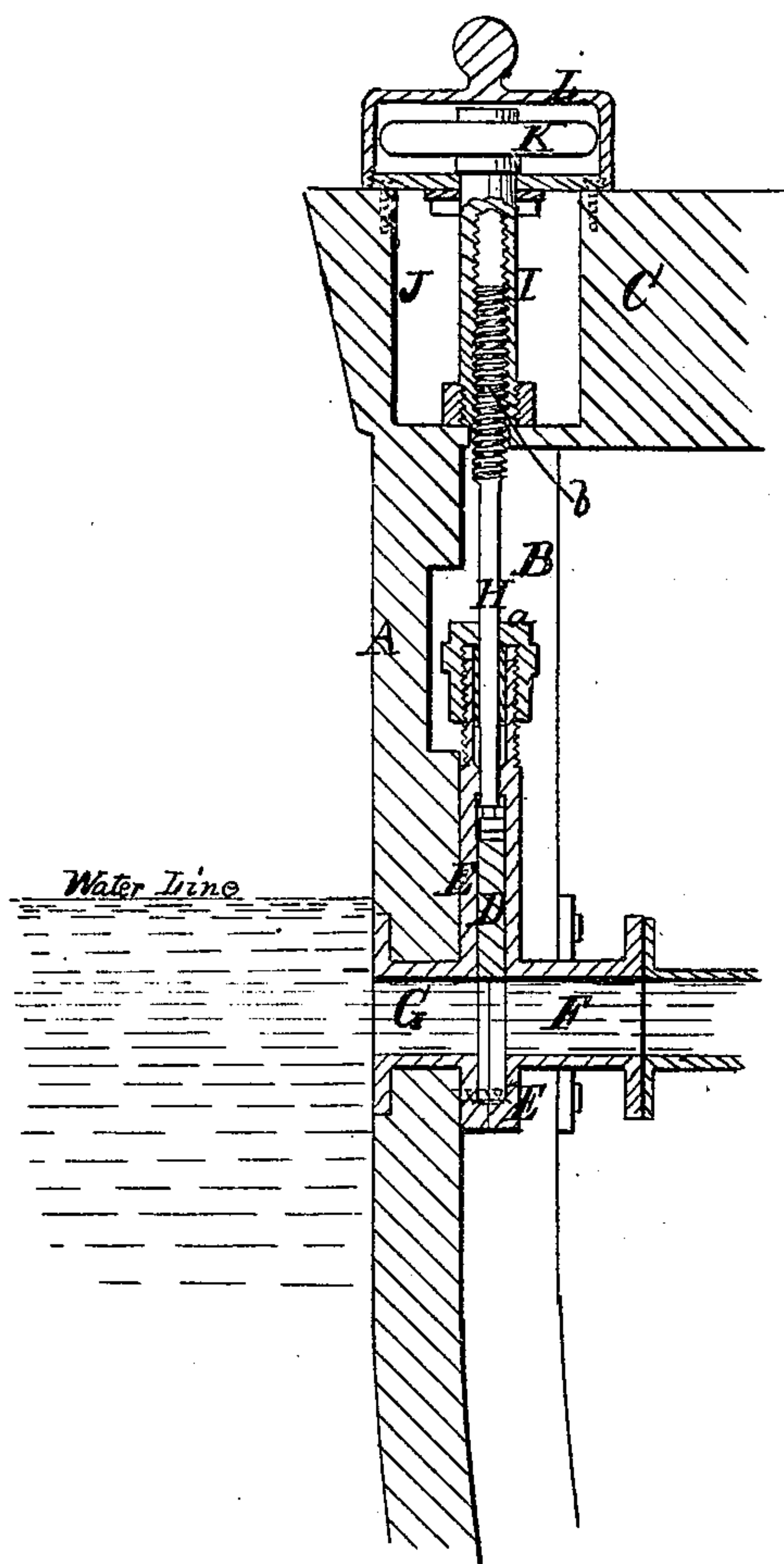
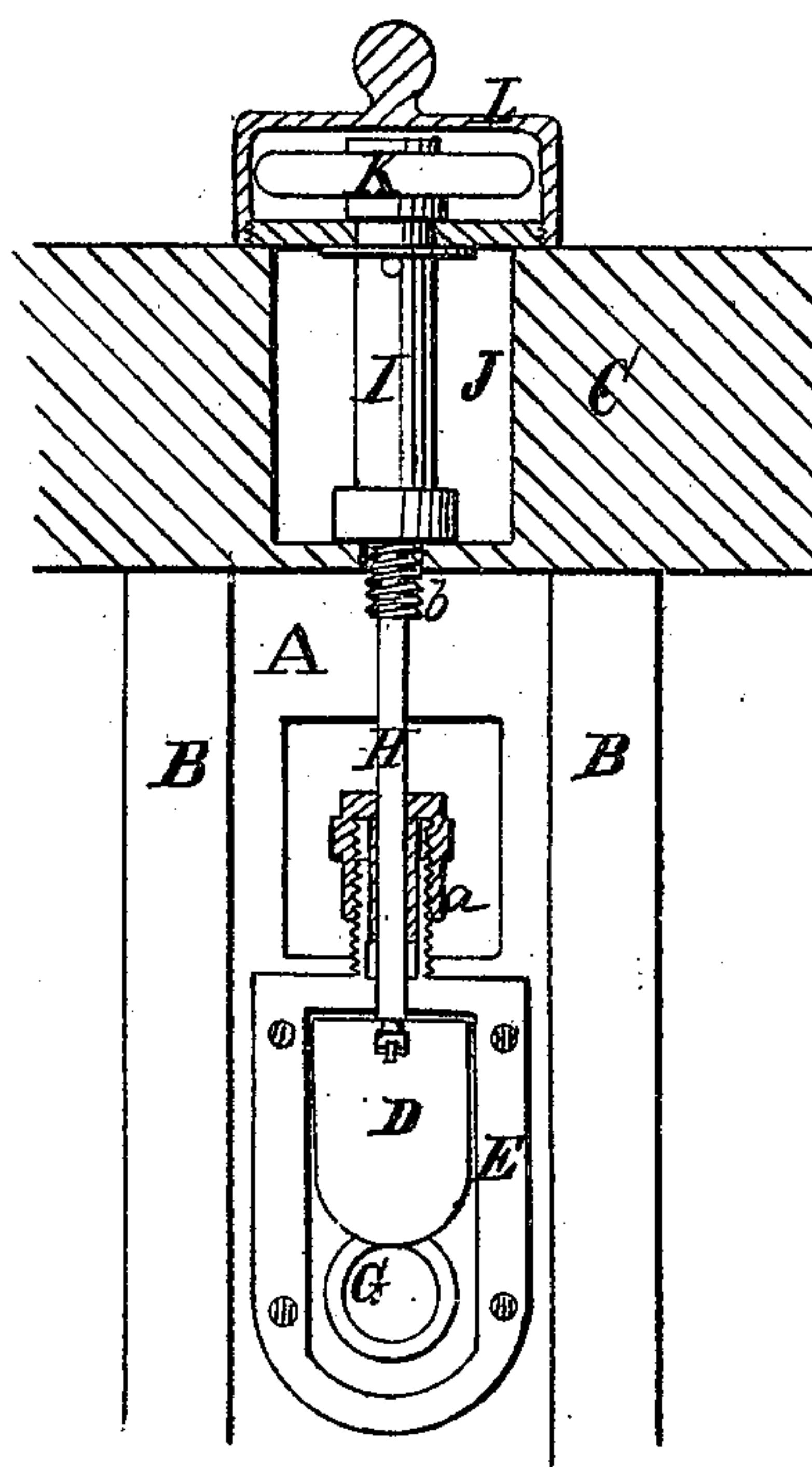


Fig: 2.



Witnesses:

R. L. Rose
George Sayles

Inventor:

Abram H. Clear

UNITED STATES PATENT OFFICE.

ABRAM H. CLEAR, OF PROVIDENCE, RHODE ISLAND.

PIPE CONNECTION FOR STEAM-BOILERS.

Specification of Letters Patent No. 25,094, dated August 16, 1859.

To all whom it may concern:

Be it known that I, ABRAM H. CLEAR, of the city of Providence, in the county of Providence and State of Rhode Island, have
5 invented a new and useful Improvement in the Outer Connections of the Submerged Pipes of Steam and other Vessels; and I do hereby declare that the following is a full, clear, and exact description of the same,
10 reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a transverse vertical section of part of the side and deck of a vessel and
15 of my improved pipe connection. Fig. 2, is an inside view of the side of the vessel with a section of the pipe connection at right angles to Fig. 1

Similar letters of reference indicate corresponding parts in both figures.

The liability to bursting or breakage of the injection pipe or pipes or other submerged pipes is an ever present source of danger on board of steam vessels, and in
25 other vessels there are frequently submerged pipes liable to similar accident in a lesser degree.

The object of this invention is to obviate such danger by providing convenient means
30 of closing such pipes close to the exterior of the vessel; and to this end the nature of my invention consists in making the connection of the pipe with the side or exterior of the vessel by means of a valve box arranged
35 within the planking of the vessel and containing a valve operated by means of a screw or its equivalent from the deck of the vessel by which the external orifice may be closed instantaneously in case of a break or leak
40 occurring in the pipe thereby effectually shutting out the water.

To enable others to apply my invention I will proceed to describe its construction and operation.

45 A, is the outer planking; B, B, are the timbers; and C, is the deck.

D, is a sluice valve fitted to slide up and down in a box E, of a well known kind which is bolted to the interior of the plank-
50 ing A, and which has two short flanged pieces of pipe F, and G, cast with or otherwise secured to it on its inner and outer sides, the latter projecting through the outer planking and coming flush with the
55 exterior thereof, and the former projecting

far enough into the vessel to provide for the convenient connection of the injection pipe or any other of the pipes whose external orifice is required to be below the surface of the water.

H, is the stem of the valve attached to the valve so as to be incapable of turning, and working through a stuffing box *a*, in the top of the valve box. This reaches up to near the deck and has a screw thread *b*, on the
65 exterior of its upper part.

I, is a tube fitted to a box J, in or above the deck of the vessel in such a manner as to be confined longitudinally, but as to be permitted to turn freely. This tube has a female screw thread in its interior fitting to the screw thread *b*, of the valve stem, and it has firmly attached to its upper part a hand wheel K, conveniently situated above the deck, so as to be operated by a person on
75 deck. By turning this wheel, the tube I, is made to revolve upon the screw thread *b*, and by that means to move the valve stem up or down according to the direction in which it is turned.

L, is a cap screwing on to the top of the box J, and only removed when the valve is to be operated.

Under ordinary circumstances the valve D, remains open to permit the free ingress
85 of water; but in case of the breaking, bursting or serious leakage of the pipe, the cap L, is removed and the valve D, closed by turning the wheel K, in the proper direction, for the purpose of shutting out the water
90 till the damage to the pipe can be repaired.

I do not claim the form of the valve as herein represented or any particular form of valve but

What I claim as my invention and desire
95 to secure by Letters Patent, is—

Making the connection between the injection pipe or other similarly submerged pipe of a steam vessel or any other vessel, with the side or exterior of the vessel, by means
10 of a valve box situated within or between the inside and outside planking of the hull, fitted with a valve capable of being operated by a screw or its equivalent by a person on or above the deck of the vessel, substantially
10 as herein described.

ABRAM H. CLEAR.

Witnesses:

R. L. ROSE,
LYCURGUS SAYLES.