

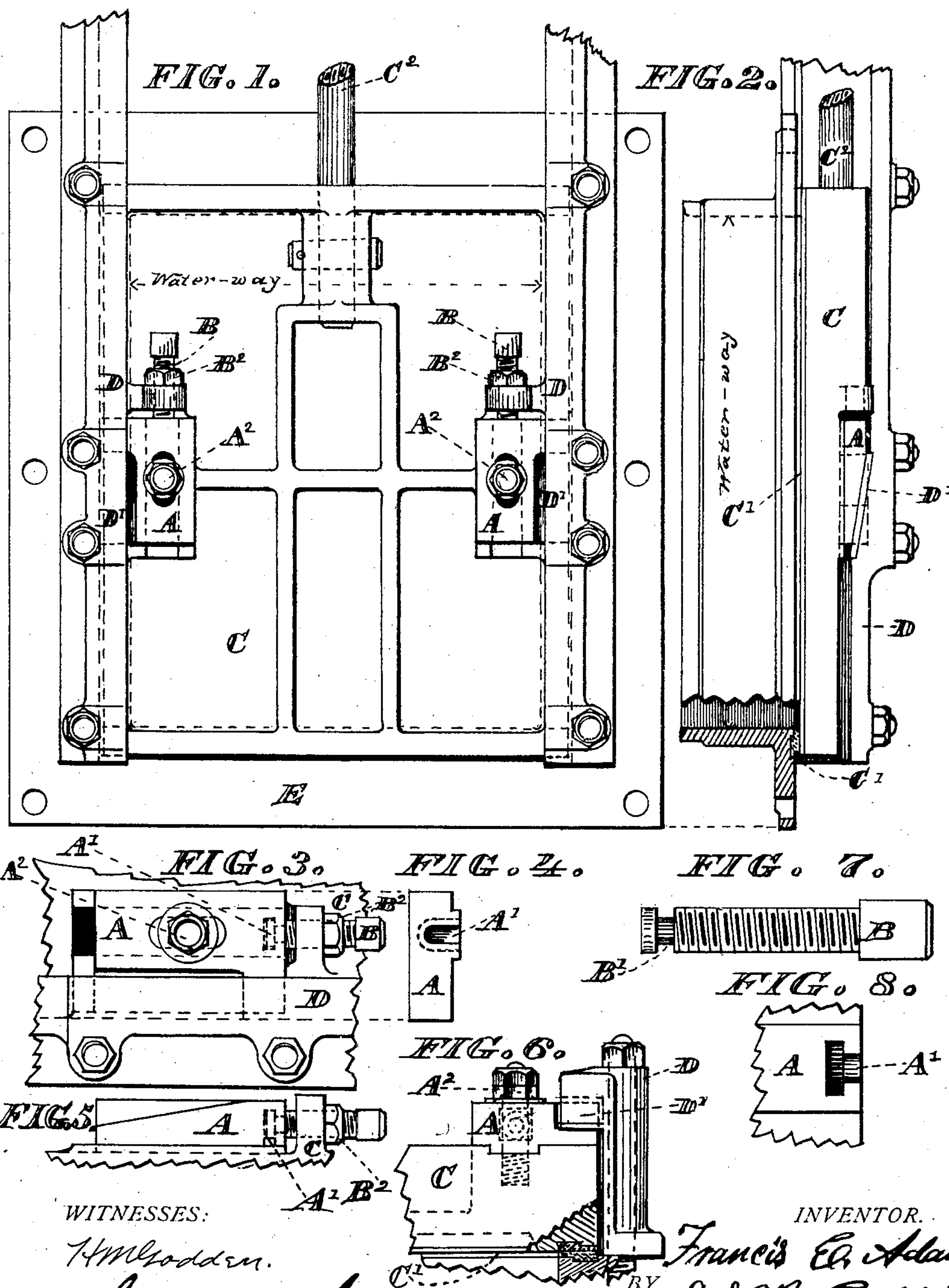
No. 771,959.

PATENTED OCT. 11, 1904.

F. E. ADAMS.
WATER GATE.

APPLICATION FILED FEB. 26, 1904.

NO MODEL.



UNITED STATES PATENT OFFICE.

FRANCIS EUGENE ADAMS, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO
COFFIN VALVE COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

WATER-GATE.

SPECIFICATION forming part of Letters Patent No. 771,959, dated October 11, 1904.

Application filed February 26, 1904. Serial No. 195,491. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS EUGENE ADAMS, of the city of Boston, county of Suffolk, and State of Massachusetts, have invented a certain
5 Improvement in Gates for Water and other Fluids, of which the following description, referring to the accompanying drawings by means of letters, with said drawings, forms a full and complete specification.

10 Referring to the drawings, Figure 1 is an elevation showing a water-gate looking at the back of the valve. Fig. 2 is also an elevation, partly in section, viewed from the side, one valve-guide and part of the body of the frame
15 E being removed to expose the side view of the valve. Fig. 3 is an enlarged view of one of the wedges used to press the valve to its seat with the guide part of the frame E carrying the bearer on which the wedge acts to
20 press the valve to its seat. Fig. 4 shows the end view of wedge and its screw-socket. Fig. 5 is a side view of wedge, &c. Fig. 6 is an inverted partial plan in which appears valve, wedge, and frame, guide included. Fig. 7
25 shows the wedge-adjusting screw having square or polygonal head and a point or opposite end formed with neck. Fig. 8 is an under view of wedge, showing the otherwise unexposed face with socket to receive necked
30 end of the adjusting-screw.

Like letters of reference refer to the same or corresponding parts in all the figures.

The nature of my invention relates to the wedges used for pressing the valve to its face
35 on the gate-frame and to the several parts thereto related, their construction, combination, and arrangement, substantially as hereinafter more fully set forth; and it consists of the wedge A, provided with the socket A',
40 the neck-pointed screw B, and other parts whereby they are related to the gate and made to operate as set forth.

The valve is marked C. The valve-stem is marked C².

45 The wedge does not differ materially from ordinary constructions, except in having a swivel

connection to its adjusting-screw, whereby the wedge is more perfectly controlled in its action in pressing the valve to its seat and in effecting its withdrawal as desired. This
50 swivel connection is most conveniently constructed by forming a socket A' in the under or hidden part of the wedge A. Then with the adjusting-screw B formed with neck B' the wedge has simply to be dropped on with its
55 socket embracing or engaging the neck and head formed by the neck of the screw. Thus the screw is free to turn in the wedge-socket, and so move the wedge back and forth as it is turned forward or backward at pleasure. 60

The screw B is provided with any suitable head by which it may be easily turned, and a set-nut B² serves to fasten it and prevent its turning when not required. The frame carries a suitable bearer D', upon which the wedge
65 acts to force the valve to its seat. This bearer is usually located on the valve-guide part of the frame. The guide is marked D. The valve-seat is marked C'.

Any desired number of wedges A may be
70 employed. The gate shown has two, one on each side. The wedges are usually of bronze or bronze-faced, as are also the valve and its seat, as shown, especially when used for water.

At A² are shown retaining screws and nuts
75 to make the wedge fast when it has been adjusted by means of adjusting-screw B. These nuts are loosened during adjustment.

Having described my invention, what I claim, and desire to secure by Letters Patent, 80 is as follows:

1. In a gate for water or other fluids, a wedge provided with an adjusting-screw attached by swivel connection to said wedge, and operating in a nut attached to the valve, for the purpose
85 of pushing or tightening said wedge and also for withdrawing or loosening the same, substantially as shown and described.

2. In a gate for water or other fluids a wedge provided with a socket formed in its body to
90 receive and engage the necked end or point of the adjusting-screw, in combination with said

screw, its nut and seat upon the valve, the valve and wedge-bearer on the frame, substantially as shown and described.

3. In a gate for water or other fluids, the
5 neck-pointed screw and its set-nut, in combination with the nut on the valve, the wedge and valve, substantially as shown and described.

4. In a gate for water or other fluids as swivel-connected screw and wedge, in combination

with the valve, and a suitable bearer upon the
gate-frame for the wedge to act on, substantially as shown and described.

FRANCIS EUGENE ADAMS.

Witnesses:

D. N. B. COFFIN,

H. M. GODDEN,

E. J. SHADBOURNE.