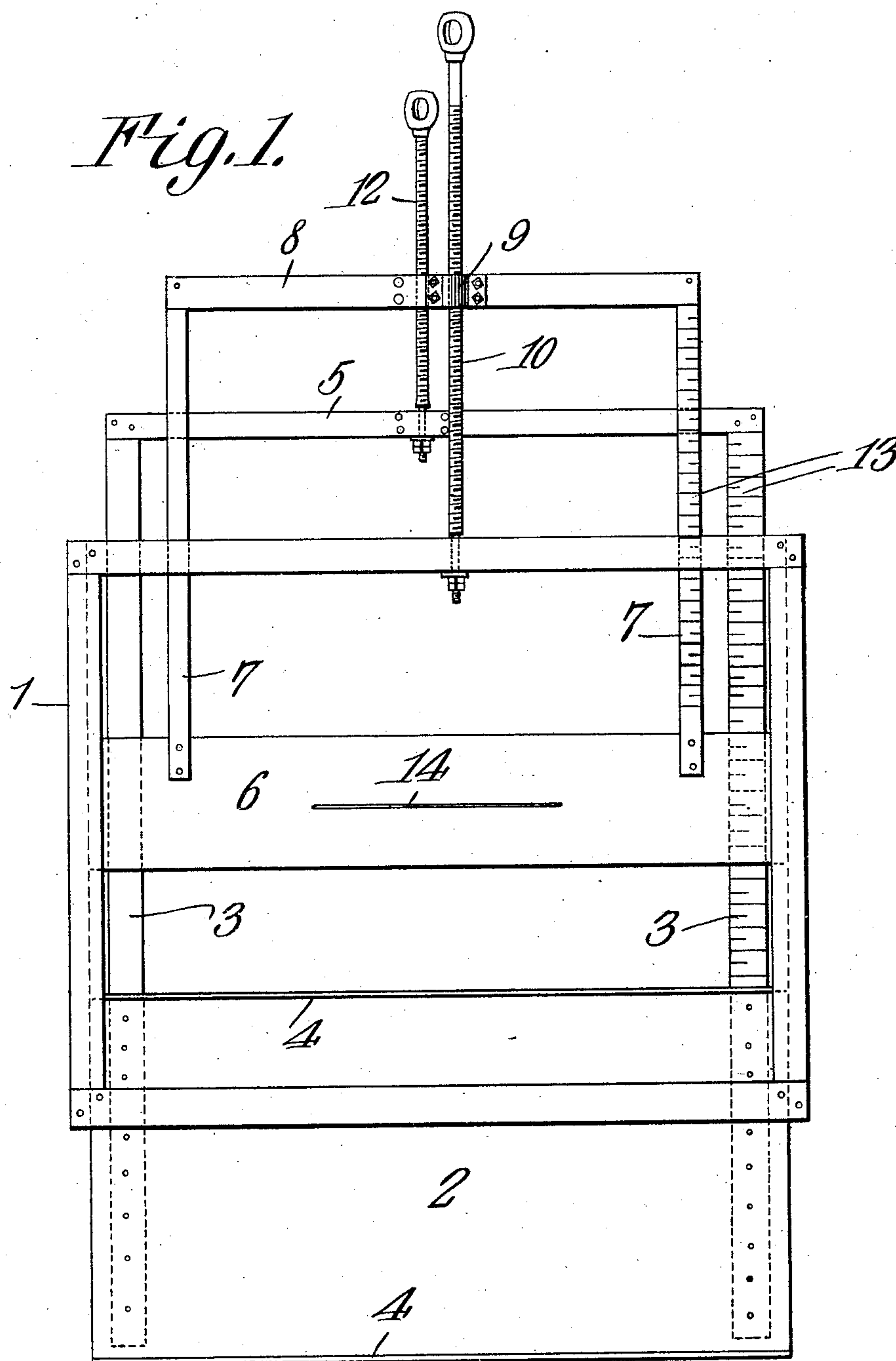


No. 869,274.

PATENTED OCT. 29, 1907.

A. H. STOKES.
WATER MEASURING GATE.
APPLICATION FILED FEB. 12, 1907.

2 SHEETS—SHEET 1.



WITNESSES:

E. J. Stewart

J. Bruce (Arthur)

Arthur H. Stokes, INVENTOR.

By *C. Snow & Co.*

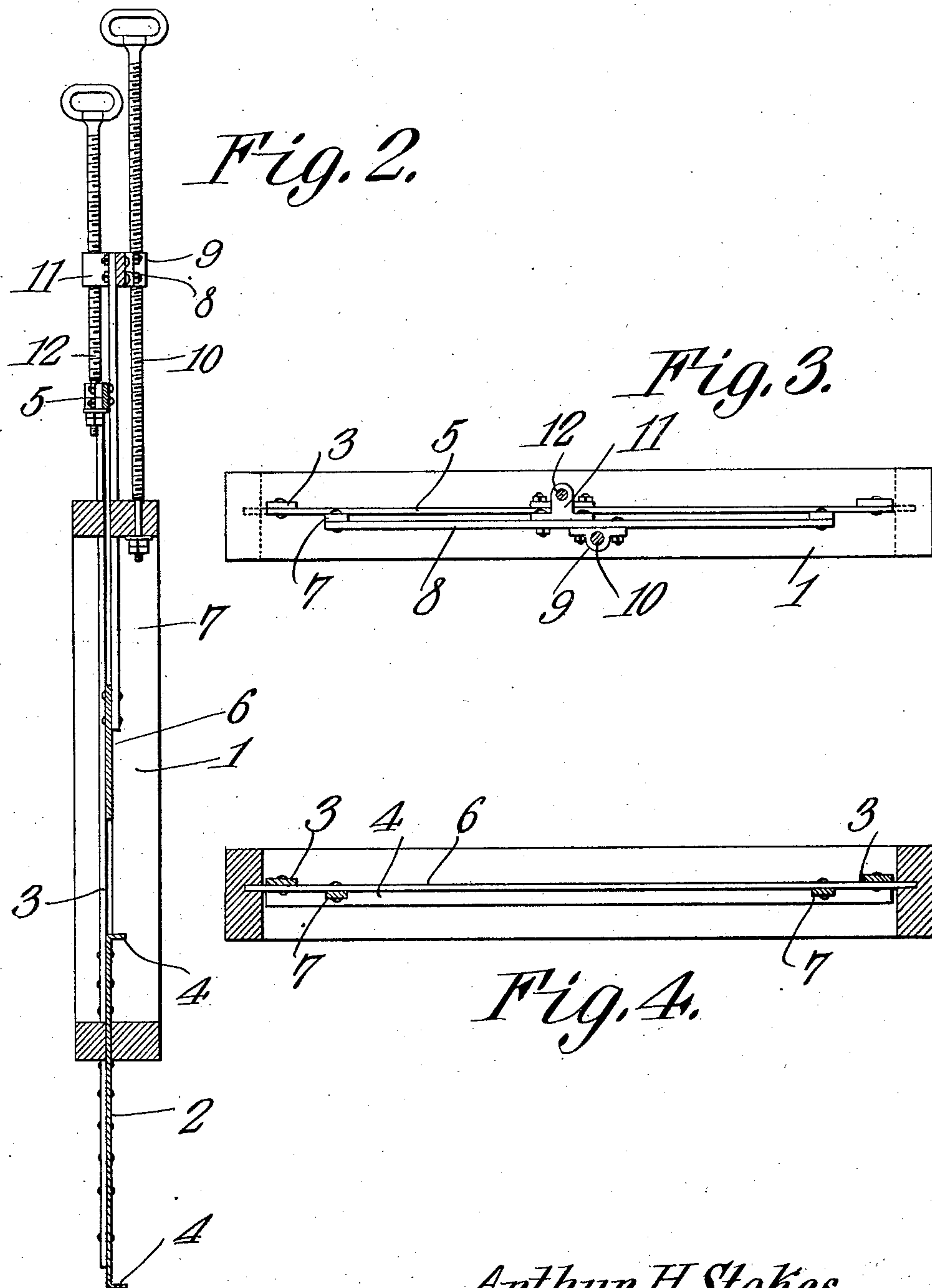
ATTORNEYS

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WITNESSES:

E. J. Stewart
J. H. Stewart

Arthur H. Stokes,
INVENTOR.

By *C. A. Snow & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

ARTHUR HILL STOKES, OF GRAND JUNCTION, COLORADO.

WATER-MEASURING GATE.

No. 869,274.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed February 12, 1907. Serial No. 357,068.

To all whom it may concern:

Be it known that I, ARTHUR H. STOKES, a citizen of the United States, residing at Grand Junction, in the county of Mesa and State of Colorado, have invented a new and useful Water-Measuring Device, of which the following is a specification.

This invention has relation to water measuring gates and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

10 The object of the invention is to provide a gate especially adapted to be used for permitting the escape of water from irrigation ditches and its parts may be so adjusted as to regulate the quantity of water passing there-through and also the head or pressure upon the flow.

15 The gate consists primarily of a frame in which is mounted a vertically disposed slide. A second slide is located above the first said slide and in the same vertical plane. Means is provided for adjusting the adjacent edges of the said slide so that the space between the said edges may be increased or diminished in order to regulate the quantity of the flow of water passing through said space. Means is also provided for moving the said slides simultaneously without altering their relative positions in order that the space between the adjacent edges of the slides may be moved to a greater or less depth below the surface of the water in order to increase or diminish the head or pressure upon the flow. Means is also provided for indicating the extent of the space between the adjacent edges of the slides and also for indicating the depth at which the opening between the slides is located below the surface of the water.

35 In the accompanying drawing:—Figure 1 is a side elevation of the gate. Fig. 2 is a transverse vertical sectional view of the same. Fig. 3 is a top plan view of the same, and Fig. 4 is a horizontal sectional view of the same.

40 The gate comprises the frame 1 which may be embedded in the ditch or race. The slide 2 is mounted upon the bars 3, 3 and is adapted to move vertically in the lower portion of the frame 1. The said slide 2 passes through an opening in the bottom of the frame 1 and is provided at its upper and lower edges with the laterally disposed flanges 4, 4 which prevent the said slide from moving out of the opening in the bottom of the said frame. The cross bar 5 connects the upper ends of the bars 3, 3 together. The slide 6 is mounted upon the vertically disposed bars 7, 7 and is located vertically above the slide 2. The upper ends of the bars 7 are connected together by a cross bar 8. The ends of the slide 6 also move in vertically disposed guides provided upon the inner sides of the frame 1. The inter-

nally screw threaded collar 9 is attached to the bar 8 and the threaded rod 10 engages the thread of the collar 9 and is journaled at its lower end in the top of the frame 1. The threaded collar 11 is also fixed to the bar 8 and the threaded rod 12 engages the thread of the collar 11 and is journaled at its lower end in the cross bar 5. Thus, it is apparent that as the rod 12 is rotated the bars 5 and 8 are moved toward or away from each other, consequently, the space between the upper edge of the slide 2 and the lower edge of the slide 6 is increased or diminished. As the water from the ditch passes through the space between the adjacent edges of the said slide it will be seen that the quantity of the flow may be regulated by turning the rod 10. The bars 3 and 7 are provided with indicating characters 13 which will show the extent of the opening between the edges of the slide.

When it is desired to raise or lower the slides 2 and 6 simultaneously without increasing or diminishing the space existing between their edges the rod 10 is turned, thus, the opening between the edges of the slides may be raised or lowered with relation to the surface of the water in order to diminish or increase the pressure of the flow or in order to assure a uniform quantity of flow as the water in the ditch may rise or fall. The slide 6 is provided with one or more marks or characters 14 which may be placed at the level of the surface of the water in the ditch in order to indicate or determine the elevation of the lower edge of said slide with relation to the surface of the water in the ditch.

Having described my invention what I claim as new and desire to secure by Letters-Patent is:—

1. A gate comprising a frame, slides arranged in a vertical plane for movement in said frame, a means for varying the space between the edges of the slides and means for moving said slides simultaneously.
2. A gate comprising a frame, slides located in the same vertical plane and mounted for movement in the frame, a means for varying the space between the edges of the slides and a means for moving the slides simultaneously without altering their relative positions.
3. A gate comprising a frame, slides located in the same vertical plane and mounted for movement in the frame, a screw rod connected with the slides for moving the same simultaneously and a screw rod connected with the slides for moving the same relative to each other.

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

ARTHUR HILL STOKES.

Witnesses:

WILLIAM MILNE,
JOHN FAGAN.