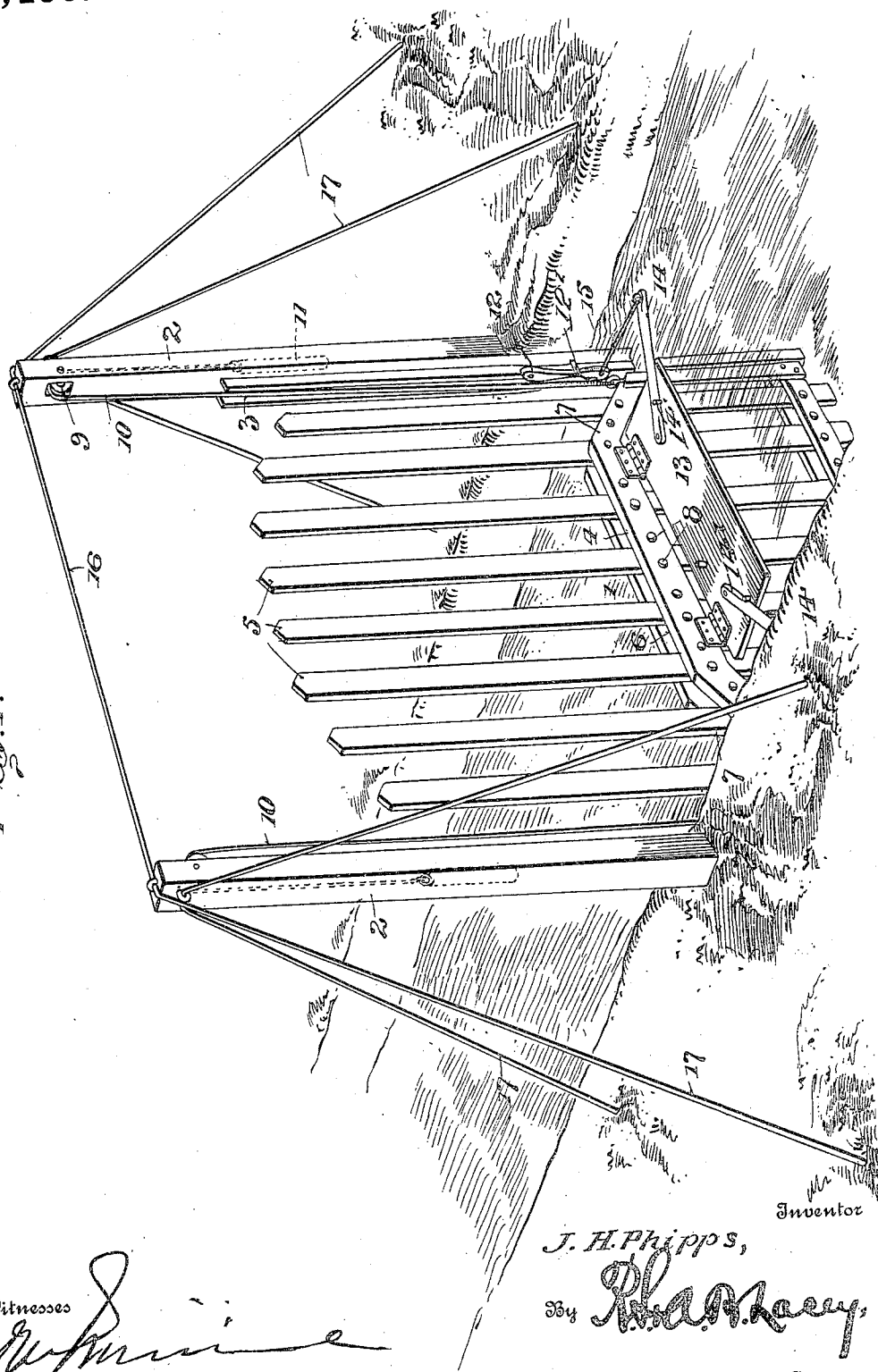


J. H. PHIPPS.
 WATER GATE.
 APPLICATION FILED NOV. 5, 1908.

Patented Dec. 7, 1909.
 2 SHEETS—SHEET 1.

942,460.

Fig. 1.



Witnesses

J. H. Phipps
O. P. Woodson

J. H. Phipps,

By

Pharmacy

Attorneys

J. H. PHIPPS.
 WATER GATE.
 APPLICATION FILED NOV. 5, 1908.

942,460.

Patented Dec. 7, 1909.
 2 SHEETS—SHEET 2.

Fig. 2.

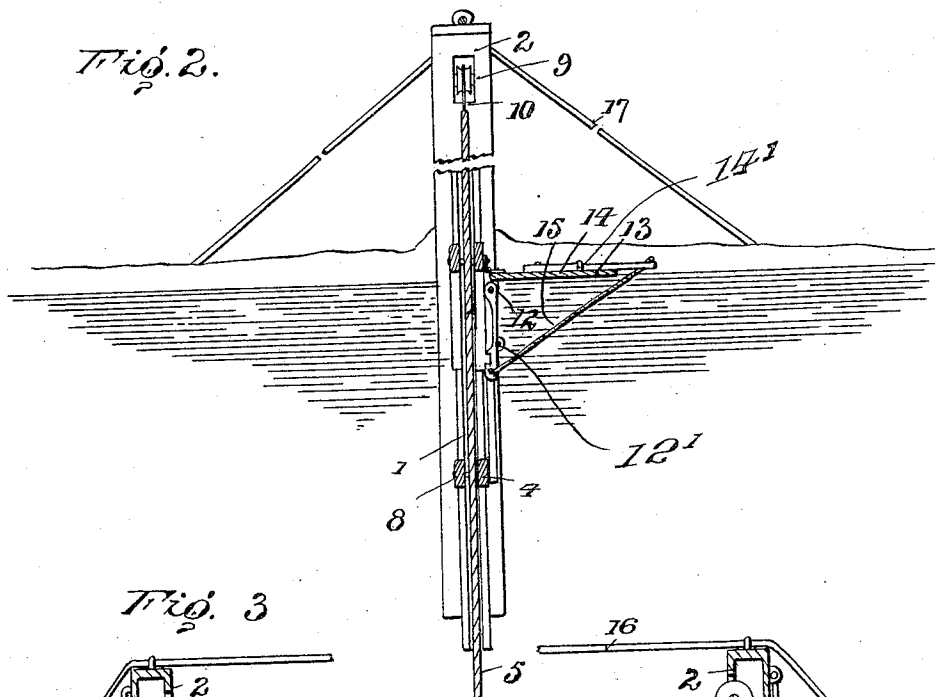
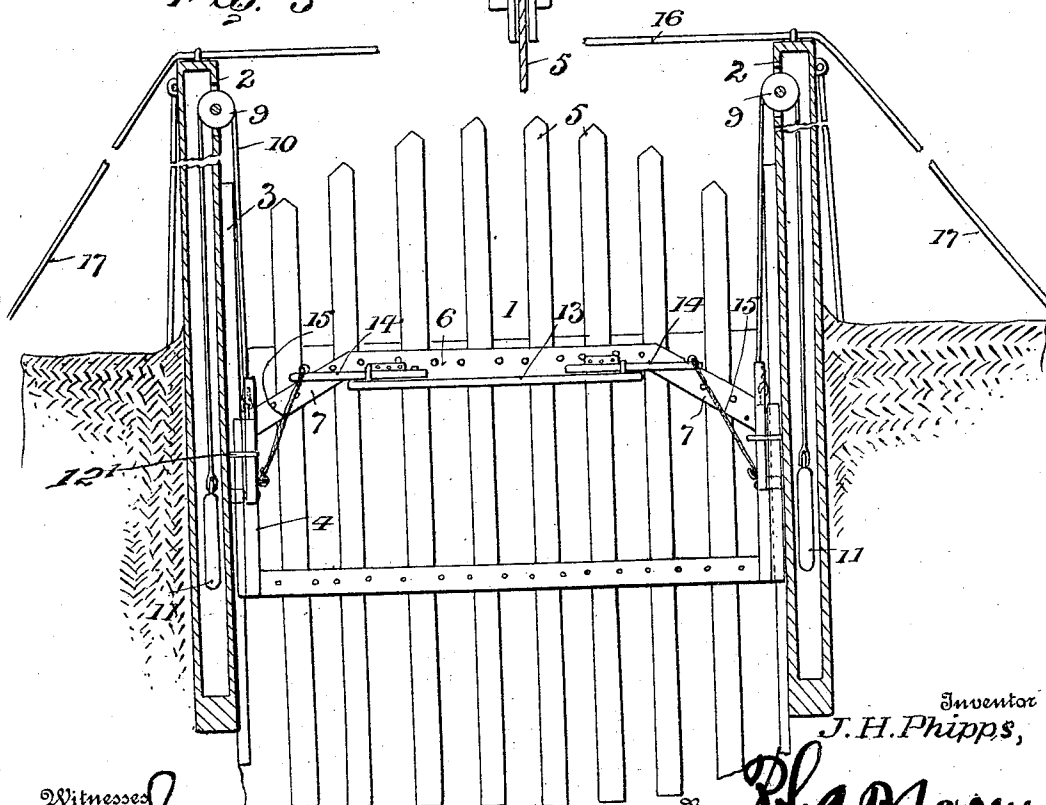


Fig. 3.



Witnesses

J. H. Phipps
W. P. Woodson

By

Phar. Kacy

Attorneys

UNITED STATES PATENT OFFICE.

JOHN HENRY PHIPPS, OF WICKLIFFE, KENTUCKY.

WATER-GATE.

942,460.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Application filed November 5, 1908. Serial No. 461,255.

To all whom it may concern:

Be it known that I, JOHN HENRY PHIPPS, a citizen of the United States, residing at Wickliffe, in the county of Ballard and State of Kentucky, have invented certain new and useful Improvements in Water-Gates, of which the following is a specification.

The present invention relates to improvements in water gates, and more particularly to that type of water gates which are so designed as to be automatically lifted when the water reaches a flood level or other predetermined height.

The object of the invention is to provide a simple and efficient gate of this character which can be readily placed in position upon the stream, and which comprises few and durable parts which are capable of withstanding considerable hard usage and which are not materially affected in their operation by the drift wood or other material carried by the stream.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of the improved water gate. Fig. 2 is a transverse sectional view through the same. Fig. 3 is a longitudinal sectional view.

Corresponding and like parts are referred to in the following description and indicated in all of the views of the drawings by the same reference characters.

The gate proper indicated at 1 is slidably mounted between a pair of spaced standards or upright posts 2 which are located upon opposite sides of the stream. The inner faces of the standards 2 are formed with the vertical grooves or guide ways 3 receiving the ends of the gate 1, and in the present instance these guide ways 3 are shown as formed by a pair of spaced strips secured to the standards 2. The gate 1 comprises a frame 4 having a series of vertically disposed slats 5 adjustably connected thereto, the said slats being movable so that they can be caused to accommodate themselves to any inequalities which may be found in the bed of the stream.

In the specific construction of the gate frame 4 it will be observed that the upper side thereof comprises a central horizontal portion 6 and a pair of end inclined portions

7, and that both the top and the bottom of the frame comprises spaced members suitably connected by pins 8 or other suitable members, the said pins forming corresponding openings in the upper and lower sides of the frame for the reception of the slats 5. The upper end portions of the standards 2 have the pulleys 9 journaled therein, and cables 10 pass over the said pulleys, the inner end of each of the cables being attached to the gate 1, while the outer end carries a weight 11 which normally acts to lift the gate and hold the same in an elevated position.

Spring catches 12 are secured to the lower portions of the two standards 2, the noses of the said catches extending downwardly and being designed to engage with the gate 1 and hold the same in a lowered position against the action of the weights 11. Suitable spring pins 12' are secured to the standards 2 and bear against the adjacent edges of the catches 12 for normally retaining said catches in vertical position. In order to provide for the automatic releasing of the catches 12 when the water rises to a predetermined level a swinging leaf 13 is hinged to the central portion 6 of the upper side of the gate frame 4 and hangs freely therefrom. When the water in the stream rises so that it is brought into contact with the leaf 13 the same is swung outwardly and operates through the medium of the arms 14 and cables or connecting members 15 to withdraw the catches 12 from engagement with the gate 1. The arms 14 are pivotally mounted on the upper surface of the float 13, the outward swinging movement of said arms being limited by engagement with suitable stop pins 14', as shown. The weights 11 then operate to lift the gate and retain the same in an elevated position. It will be observed that one of the arms 14 projects laterally from each end of the swinging leaf 13 and that the extremities of these arms 14 are suitably connected to the lower portions of the catches 12 by link members such as the cables 15. Any suitable means may be employed for bracing the standards 2 and holding the same rigidly in position, and in the present instance the upper ends of the standards are connected by a tie member such as the wire 16, and the said standards are each steadied by means of guy wires 17. In the larger and heavier gates it may be found desirable to provide the ends thereof

with rollers in order to reduce the friction and prevent any binding action.

Having thus described the invention, what is claimed as new is:

- 5 1. The combination with spaced standards, of a gate slidably mounted for vertical movement between the standards, a float pivotally connected with the gate, a catch adapted to engage the gate for holding said
10 gate in lowered position, an arm pivotally mounted on the upper surface of the float, a pin secured to the float and bearing against the arm for limiting the outward movement thereof, a flexible connection be-
15 tween the free end of the arm and catch for releasing the gate, and means operatively connected with the gate for moving said gate to elevated position when the catch is released.
- 20 2. The combination with spaced standards, of a gate slidably mounted for vertical movement between the standards, a float pivotally connected with the gate, catches pivotally mounted on the standards
25 and adapted to engage the gate for holding the latter in lowered position, arms pivotally mounted on the upper surface of the float, pins secured to the float and bearing against

the arm for limiting the outward movement thereof, a flexible connection between each 30 arm and the adjacent catch, and a weight operatively connected with the gate for moving said gate to vertical position when the catches are released.

3. The combination with spaced standards 35 having guides secured thereto, of a gate slidably mounted for vertical movement in said guides, a float pivotally secured to one side of the gate, catches pivotally mounted on the standards and adapted to engage the
40 gate for holding the latter in lowered position, spring pins extending laterally from the standards and bearing against the rear faces of the catches, diverging arms secured to the upper surface of the float, flexible
45 connections between the outer ends of the arms and the adjacent catches, and means operatively connected with the gate for moving said gate to elevated position when the
50 catches are released.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN HENRY PHIPPS. [L. S.]

Witnesses:

JOHN F. JOHNSON,
JOHN HENDERSON.