9660X

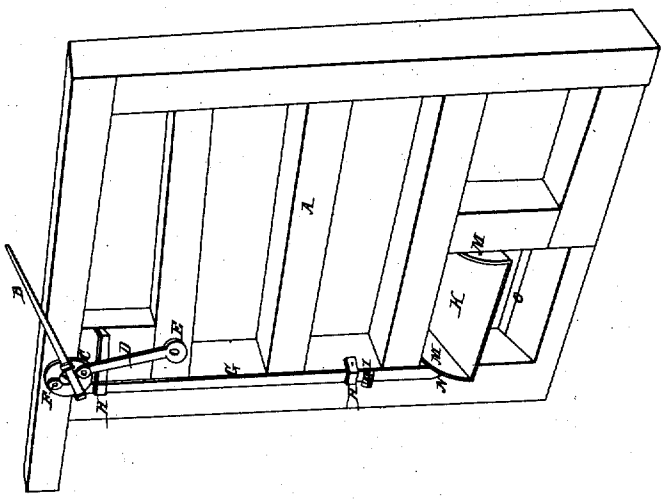
D. Wilkinson.

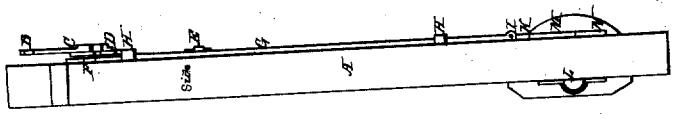
Canal Lock Gate.

NO PRINTED SPECIFICATION AVAILABLE

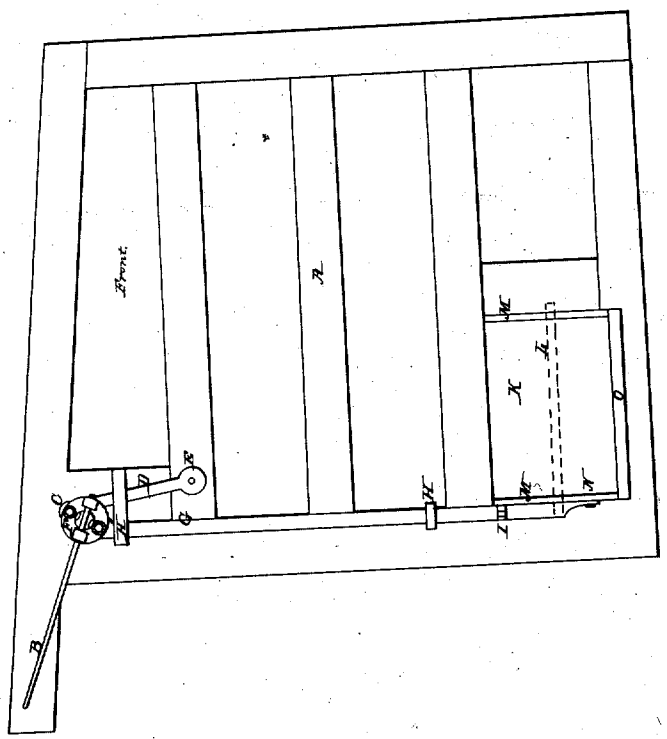
Patented May 14, 1836.

Perspective view shewing the Valve open.





Geometrical view shewing the Valve shut.



9660X

May 14. 1836

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David Wilkinson of Cohoes New York

Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said David Wilkinson himself of his Improvement in the Canal Locks Gates.

Be it known that I David Wilkinson of the Town of Cohoes in the County of Albany and State of New York have made a new and useful improvement in Canal Lock Gates called "Wilkinson's improved Lock Gates" which is described as follows, reference being had to the annexed drawings of the same making part of this Specification

A represents the frame of the Gate constructed in the usual manner. B. an eccentric lever. C moveable eccentric fulcrums. D. arm or shaft of the moveable eccentric fulcrums turning on a fixed pivot. E. F. a circular plate at the end of the eccentric lever to which the arm D. and connecting rod E. are attached and which turns on pins inserted in the arms of the circular plate by pin C being the moveable eccentric fulcrums before mentioned. H. staples to keep the connecting rod and arms in their proper positions. I. hinge or joint in the connecting Rod. K the valve. L the axis on which the valve turns. M. semicircular ends or flanges of the valve. N. pin by which the connecting Rod is attached to the arm of one of the semi circular ends of the valve. It being much better to make the attachment at the end instead of the centre of the valve on account of the liability of the latter mode of impeding the passage thro' the valve opening of Hay Straw Sticks &c: which may fall in to the canal. O. bevelled or chamfered bottom of the valve opening against which the valve shall close. Operation. The axis of the valve being placed below the centre makes the area of the upper part greater than that of the lower or convex. The pressure of the water will be greater upon the upper than upon the lower part and will therefore keep the valve close against the bevelled edge of the bottom. When it is required to open the valve the power is applied to the end of the eccentric

* Additional instrument added 28th April 1836

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lever and caused and made to perform a segment of a circle on a piece of metal which opens the valve by means of the connecting rod attached to a pin in the periphery of the semicircle of the valve and to a pin in the periphery of the circular plate of the lever. The power at the commencement is greatest: or a maximum, the fulcrum being then the closest; and when the lever is at an angle of 90° with the horizon or parallel with the connecting rod the power is least or a minimum, but at the same time it is a maximum on the diameter of the plate, the lever being then the longest. This combination of the lever for opening and shutting the valve of a canal lock gate is very simple strong and easily managed by any person of the smallest strength as may be seen by examining the annexed drawings.

In a slide valve it will be necessary to move the lever half a circle to prevent the valve falling back when the valve is down and the pressure off. What I claim as my invention and never before known is the application of the before described excentric lever with the moveable connections to gain power and lose velocity, or lose velocity and gain power as may be required for opening and shutting the valves of canal lock gates in the manner herein before described the dimensions and materials have not been mentioned as these and the arrangement of the parts may be varied in any manner to suit circumstances of the constructor; adhering however to the principle of the invention as before laid down

Witnesses
Wm. P. Elliot
Sam. Sewall

David Williams

(129 words)

(Granted May 14. 1836)

(See Additional Letters Patent No 7. Recorded in Vol. No 1. page 14 of Additional Improvements. Granted April 24 1838)