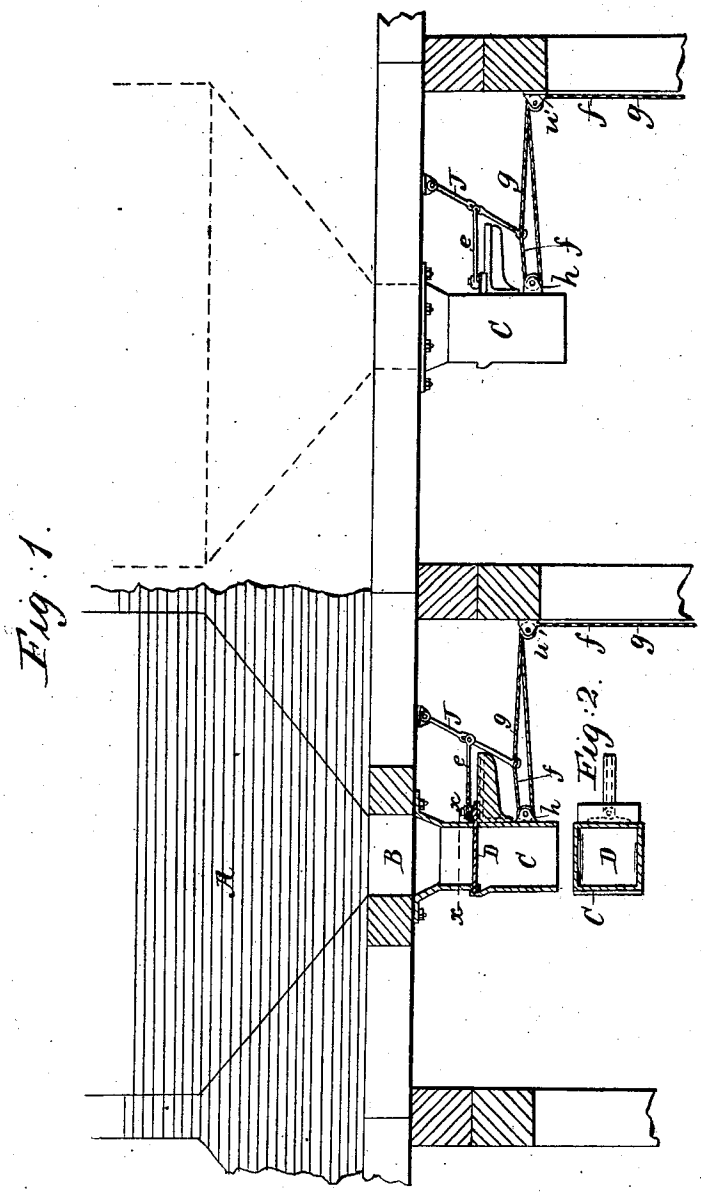
G. H. JOHNSON.

Grain Bin Valve.

No. 86,928. Patented Feb. 16, 1869.



Witnesses.

Jno. J. Bonner

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By Torlush & Fyall Attys

UNITED STATES PATENT OFFICE.

GEORGE H. JOHNSON, OF BUFFALO, NEW YORK, ASSIGNOR TO HIMSELF AND GEORGE W. TIFFT, SONS & CO., OF SAME PLACE.

IMPROVEMENT IN OPERATING DISCHARGE-VALVES FOR GRAIN-BINS.

Specification forming part of Letters Patent No. **86,928**, dated February 16, 1869.

To all whom it may concern:

Be it known that I, GEORGE H. JOHNSON, of the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Discharge-Valves for Grain-Bins; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

The discharge of grain from the bins of elevators and other store-houses, as is well known, is effected through an opening or pipe in the bottom, controlled by a suitable valve. The elevation of this discharge is usually such as to render access to this valve, for operating it, quite difficult.

To obviate this difficulty is the object of my improvement; and the invention consists in the special arrangement of a lever, ropes, and pulleys with the discharge-valve, whereby the latter can be readily actuated from the floor at any desired locality thereon, as will hereafter be fully explained.

In the drawings, Figure I represents a vertical section and an elevation of the discharge-pipe of a grain-bin provided with my improved arrangement for operating the valve thereof. Fig. II is a horizontal section of the discharge-pipe in line *x x*, Fig. I.

Like letters refer to like parts in both of the figures.

A represents the lower and hopper-shaped portion of a grain-bin; B, the discharge-aperture therefrom; C, the discharge-pipe, and D the valve therein. This valve is of the common construction of slide-valves for the purpose, and has an arm or rod, *e*, extending horizontally therefrom, which connects with the pendent lever J, at or near its center, which is pivoted at its upper end to a beam or other support overhead, that forms its fulcrum. To the lower end of the lever are attached two cords or ropes, *f g*, which extend horizontally in opposite directions, in a line parallel to the direction in which the valve slides. The rope *f* passes around a pulley, *n*, attached to the discharge-spout, and thence opposite, around another pulley, *i*. The rope *g* passes around a pulley, *i'*, in close proximity to pulley *i*, whence both ropes descend to the floor in reach of the attendant.

The operation of my improvement is obvious, as the pulling on either of the ropes *f g* will cause the lever to slide the valve, closing or unclosing the passage, according as the one or the other of them is pulled.

The ease with which the valve can thus be actuated in regulating the discharge, and the consequent advantage resulting from the use of my invention, are sufficiently manifest.

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

The arrangement, with the discharge-valve and rod D *e*, of the lever J, ropes *f g*, and pulleys *n i i'*, substantially as set forth.

GEO. H. JOHNSON.

Witnesses:

W. H. FORBUSH,

JAY HYATT.