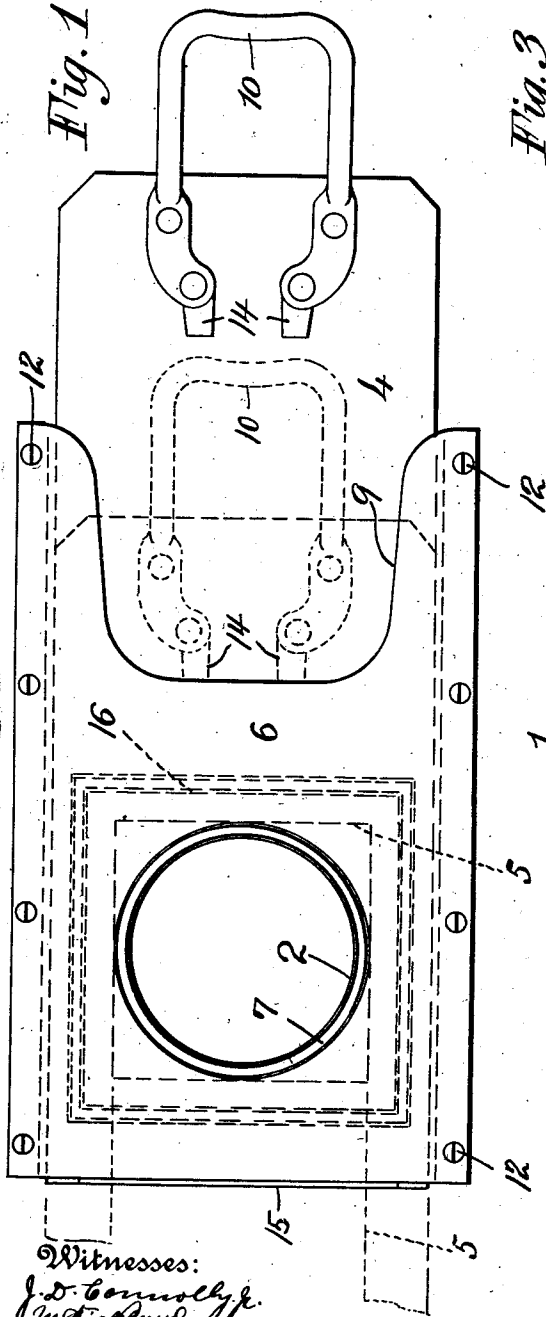


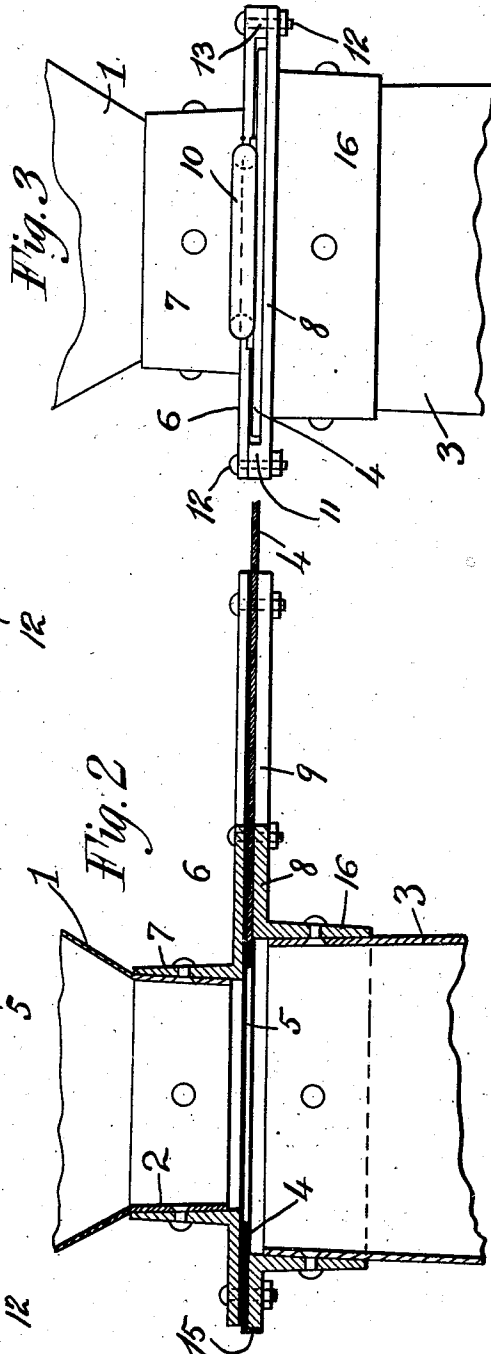
E. F. SCHNUCK.
MOVABLE GATE FOR BINS AND THE LIKE.
APPLICATION FILED OCT. 6, 1913.

1,189,003.

Patented June 27, 1916.



Witnesses:
J. D. Connolly Jr.
M. F. Schaub



Inventor
Edward F. Schneck,
By his Attorneys
Edwards, Lager & Wooster

UNITED STATES PATENT OFFICE

EDWARD F. SCHNUCK, OF GREENBURG, NEW YORK, ASSIGNOR TO JABEZ BURNS & SONS,
A CORPORATION OF NEW YORK.

MOVABLE GATE FOR BINS AND THE LIKE.

1,139,003.

Specification of Letters Patent. Patented June 27, 1916.

Application filed October 6, 1913. Serial No. 793,905.

To all whom it may concern:

Be it known that I, EDWARD F. SCHNUCK, a citizen of the United States, residing at Greenburg, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Movable Gates for Bins and the like, of which the following is a full, clear, and exact specification.

This invention relates to movable gates for bins and the like, wherein it is desired to control the flow of comminuted materials, such as grains, sugar, coffee, meal and the like which have a tendency to clog in the opening.

The object of the invention is to provide a gate in a chute or passage which is preferably slidable to open and close the passage, and which in closing the passage does not permit the material to catch or clog the guideways.

A further object of the invention is to provide a device which can be readily taken apart, and which can be applied in connection with various existing bins in packaging machines, warehouses and the like.

In the accompanying drawing, Figure 1 is a plan view of a mechanism embodying the invention; Fig. 2 is a vertical section; and Fig. 3 is an end elevation.

1 represents the bottom of a bin, hopper or the like having a circular bottom opening 2.

3 represents the top of a receptacle or passage into which material is to be discharged, the discharge being controlled by a sliding gate, 4, having a rectangular opening 5, the opening 5 being of substantially the diameter of the circular passage from the hopper.

6 represents an upper flat plate having an upright collar extension 7 to which the hopper 1 is attached.

8 represents a bottom supporting plate having a flat face on which the gate 4 slides, these plates 6 and 8 being preferably cut in as at 9 in order to receive the handle 10 of the gate 4, when the latter is closed, so that the handle will not objectionably project outside the apparatus with which the bin is associated.

The plates 6 and 8 as herein shown are provided with lugs 13, 11, which are on opposite sides respectively, so that when the plates are brought together and secured

by bolts 12 a space or slide will be provided for the gate 4, it being seen that the gate is supported by the lower plate 8, and disposed very close to the lower face of upper plate 6, so that an accurate closing of the passage is effected by the gate. The handles 10 are preferably provided with lugs 14 which act as stops, as shown in dotted lines of Fig. 1 against the cut-away portion of the upper plate, to limit the closing movement of the gate, while the gate is provided at the other end with a stop lug 15 which strikes against one of the plates to limit the opening movement. The lower plate 8 is provided with a rectangular tubular extension 16 to which the chute 3 is attached. The rectangular tubular extension 16 is made longer on each side than the diameter of the opening through the upper plate, and of course larger than the opening 5 in the gate, so that the material, once passing the gate, will fall freely without being caught in the lower tube or in the guide ways. It will also be seen that the gate is supported by the lower plate 8, both at the sides and at the front and back with ample supporting surface, so that it will carry the weight of the material in the hopper 1 without deflection, and will also remove evenly. By cutting in the plates 6 and 8 as at 9, the gate can be shortened in over-all length, and when the gate is in closed position as shown in dotted lines, Fig. 1, there is very slight projection of the handle beyond the ends of guides, it being further seen that by this construction very long guides are attained.

The improvement is capable of use in various relations, and therefore the construction of bins and chutes is not illustrated or particularly described, it being seen that these will vary with different installations according to the particular use.

Various modifications and changes in the specific construction may be made without departing from the scope of the claim.

Having thus described my invention, I declare that what I claim as new and desire to secure by Letters Patent is:—

A gate mechanism for a bin or the like comprising an upper plate having an aperture and an upwardly extending flange flush with said aperture, a lower plate having an aperture larger than said upper aperture and a downwardly extending flange flush with said lower aperture, means holdingsaid

plates together and leaving a guideway between them, extensions on opposite edges of each of said plates forming extended guideways, an apertured gate sliding between
5 said plates, a handle on said gate seating between said extended guideways and against one of said plates when said gate is in closed position, and means for limiting the opening movement of said gate to center the gate

aperture with relation to the apertures in 10 said plates.

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

EDWARD F. SCHNUCK.

Witnesses:

W. A. SANDS,
LOUIS BARNET.