

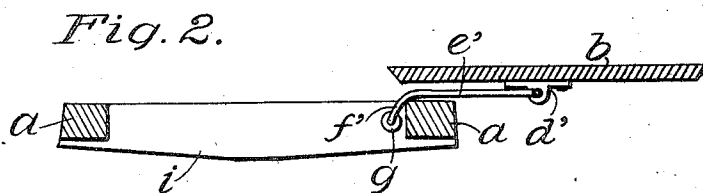
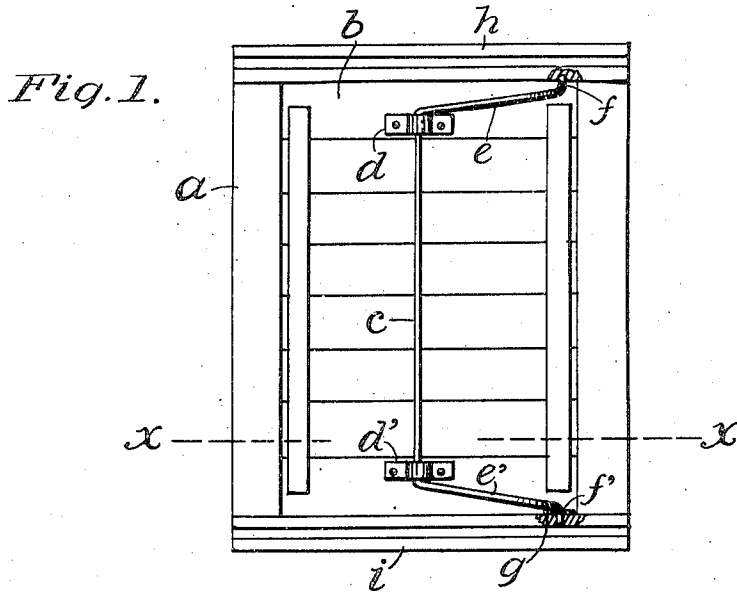
E. A. BRANDENBURG & G. SCHMIDT.

SWINGING CONNECTION FOR SILO DOORS.

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1,009,889.

Patented Nov. 28, 1911.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SWINGING CONNECTION FOR SILO-DOORS.

1,009,889.

Specification of Letters Patent. Patented Nov. 28, 1911.

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To all whom it may concern:

Be it known that we, EMIL A. BRANDENBURG and GEORGE SCHMIDT, citizens of the United States of America, and residents of Bremer county, Iowa, have invented certain new and useful Improvements in Swinging Connections for Silo-Doors, of which the following is a specification.

Our invention relates to improvements in swinging connections for silo doors, and the object of our improvement is to provide a silo door with arms adapted for connection to the silo frame in a manner which will permit the door to be swung clear of the silo frame, inwardly, and be also returned in the same way to closely fit its casing; the door when thus swung open inwardly being adapted to lie close to the silo wall and entirely free of the door opening. This object we have accomplished by the means which we have hereinafter described and claimed, and which are illustrated in the accompanying drawings, in which:

Figure 1 is an elevation of a silo door closed against its casing, and equipped with our improved swinging connections, and Fig. 2 is a horizontal section of the same taken along the line *x-x* of Fig. 1.

Similar letters refer to similar parts throughout the several views.

We have shown of a silo body only the casing parts *a*, and *h-i*, the former being vertical uprights spacing apart and supporting the ends of the horizontal beams *h* and *i*. The opening thus afforded between said parts is adapted to be closed by a door *b* formed of slabs connected by battens. A trifle to one side of the vertical medial line of the door *b*; the bearings *d* and *d'* are secured to it at top and bottom. A vertical rod *c* has its ends mounted to rock in said bearings, and has cranks *e* and *e'* at the ends which are bent at their ends *f* and *f'* respectively, the bending forming two angles in each crank first toward the silo then upward and downward respectively for said cranks to enter bearing-holes in the said beams *h* and *i*. The lower crank-end *f'* rests upon a washer or wear-plate *g*. The first bend in each of said cranks adapts the cranks to clear the corners of the uprights *a* when the door is swung open, as is shown

in Fig. 2, where the door *b* is represented as swung into the silo and back against its inner wall close to the latter, where it entirely clears the door opening. The door may be swung back to close it, or shifted to one side into place, which operation is made possible by reason of the peculiar swinging and free connection of the rock-body *c* with the door. Being supported both above and below by reason of the connections of the cranks of said rock-body with the beams *h* and *i*, the door is held firmly and prevented from sagging out of line, and is thus always free and easy to move, and always fits the casing.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is:

1. In combination, a door-casing, a door, bearings on the upper and lower parts of said door, said casing having bearing-openings on its upper and lower beams to one side of the said door bearings, and a rock-shaft seated in said door bearings with its ends bent at an angle and movably seated in the adjacent bearing-openings in said casing, to permit said door to be moved bodily away from the casing to clear its opening.

2. In combination, a door-casing, a door adapted to close said casing, bearings medially located on said door on its side directed toward the casing one above another, said casing having bearing-openings in its horizontal beams to one side of the door bearings, and a rock-shaft movably seated in said door-bearings, with its ends so bent toward the casing-bearings as to both enter and be movably seated in same and to arch over the adjacent side beam of the casing to clear same when the door is opened to permit the latter to be swung bodily outward to entirely clear the door-opening, and allow the door to lie closely parallel to the casing inner plane and to one side thereof.

Signed at Waterloo, Iowa, this 30th day of March, 1911.

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Witnesses:

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