

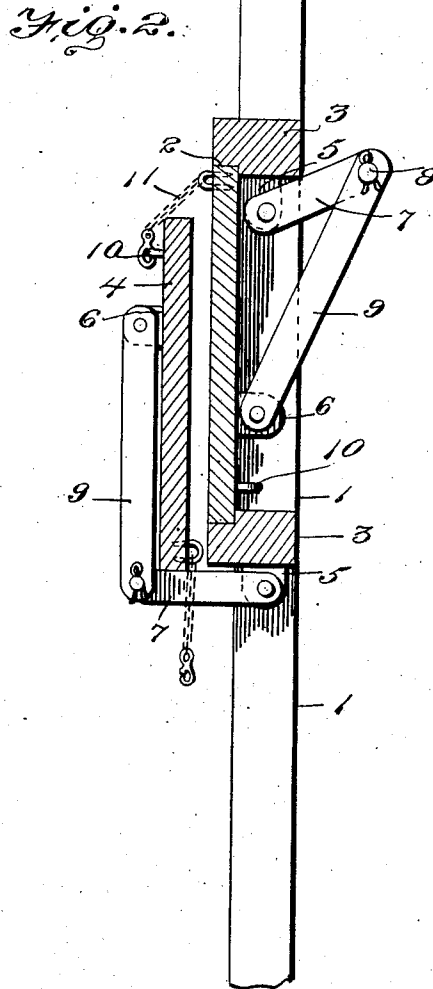
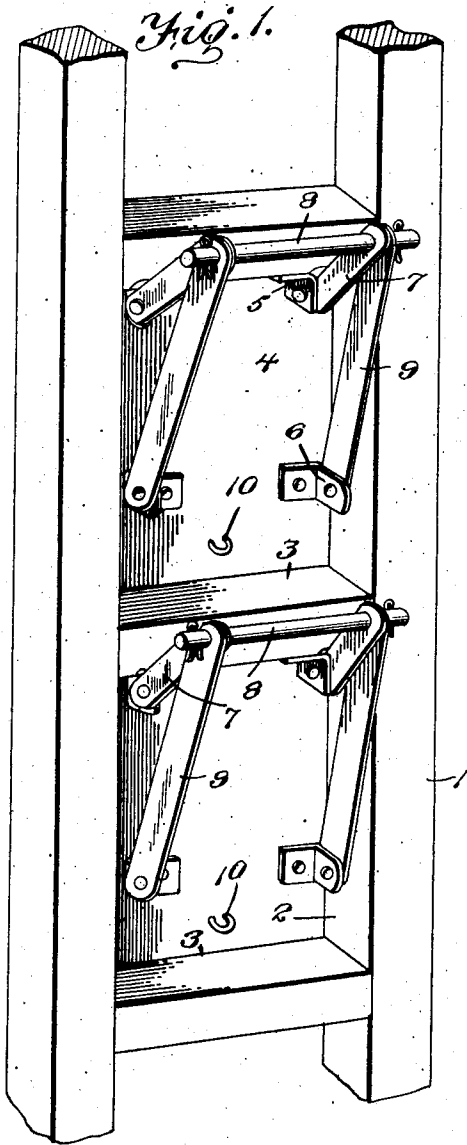
C. J. CRAIG.

SIL0 DOOR.

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1,047,755.

Patented Dec. 17, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLEY J. CRAIG, OF LATHROP, MISSOURI.

SILO-DOOR.

1,047,355.

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To all whom it may concern:

Be it known that I, CHARLEY J. CRAIG, citizen of the United States, residing at Lathrop, in the county of Clinton and State of Missouri, have invented certain new and useful Improvements in Silo-Doors, of which the following is a specification.

This invention relates to a door structure especially adapted to be used upon silos and similar buildings, and has for its object to provide means for supporting the door so that it may be moved to close a door opening, and the parts which support the door may be used as a ladder to enable one to ascend the silo structure. With this object in view the door includes a panel which is adapted to close over the door opening in the building. This door opening is practically continuous from the base to the top of the building, and cross bars are supported in the said opening at intervals. Lugs are secured to the under sides of these cross bars, and links are pivoted at their inner ends to the said lugs. The outer ends of the links are connected together by rounds. Lugs are attached to the doors, and links are pivotally connected with the last-mentioned lugs, also with the said rounds. The parts being so assembled, the links which are connected with the cross bars stand out from the building when the door is in closed position, and, consequently, the connecting rounds may be used as the rounds of a ladder. When the door is in open position, the links which are connected with the cross bars are swung within the building and the links which are connected with the door panel are vertically disposed, whereby the door panel is held entirely above the opening it normally covers, thereby leaving the said opening free for ingress or egress from the building.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of a portion of the frame of the silo with the door applied. Fig. 2 is a vertical sectional view of the same.

The silo 1 to which the door is applied is provided with the usual opening 2 which extends approximately from the base of the building to the top in the usual manner. Cross bars 3 are disposed across the opening 2 at intervals, thereby forming door open-

ings and door supports, as will be described. The door consists of a panel 4 which is adapted to close against the side edges of the opening and against the cross bars 3. The bars 3 are provided upon their under sides with lugs 5. Lugs 6 are attached to the side of the panel 4. Links 7 are pivotally connected at their ends with the lugs 5, and the outer ends of each pair of links 7 is pivotally connected together by a round 8. Links 9 are pivotally connected at one end with the lugs 6, and at the other end are pivotally connected with the round 8. Each panel 4 is provided upon its outer side and in the vicinity of its lower edge with an eye 10, and each panel is provided upon its inner side and in the vicinity of its outer edge with a hook or securing device 11. When the panels 4 are in closed positions over their respective openings, the links 7 hold the rounds 8 out away from the building so that they may be used as a ladder. To open any particular door section, the panel is first pushed in, whereby the links 7 and 9 swing in a downward direction. The panel is then turned so that its upper portion is brought approximately parallel with the links 9 and in close proximity to the same. The links 7 and 9 are then swung within the door opening and the links 7 are swung to that they are approximately parallel with the lower face of the cross bar 3 just above. The links 9 are then swung to approximately vertical positions, whereby the panel is carried up along the back of the panel above and then the hook or securing device 11 upon the upper panel is connected with the eye 10 of the panel which has been moved away from its opening, thus the opening is left unobstructed and the material may be readily passed into the silo or out of the same. To close the panel the operation above described is reversed.

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

1. In combination with a building having a door opening, a door structure comprising a panel adapted to close said opening links pivoted to the building above the door opening, a round carried at the free end of said links, and links pivoted to the panel and pivotally connected with the first-mentioned links.

2. In combination with a building having a door opening, a door structure comprising a panel, and adapted to close the said open-

ing, links pivotally connected with the building above the door opening, a round connecting the outer ends of said links together, and other links pivoted at one end to the panel and at the other end to said round.

3. In combination with a structure having an opening, cross bars bridging the opening, doors adapted to close the spaces between the cross bars comprising panels, links pivoted to the cross bars, rounds carried by the links, links pivoted to the doors and pivoted to the rounds, the lowermost panels adapted to be swung away from the openings against the uppermost panels, and means for securing the panels in open position.

4. In combination with a building having an opening with cross bars bridging the

same, doors adapted to close the spaces between the cross bars and consisting of panels, links pivotally connected with the cross bars, rounds carried by the links, links pivoted to the panels and pivoted to the rounds, the lowermost panels adapted to be swung opposite the next upper panels, and securing devices carried by the panels, the securing devices upon an upper panel being adapted to hold the next lower panel in open position.

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

CHARLEY J. CRAIG. [L. S.]

Witnesses:

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