

J. BORRUSCH.

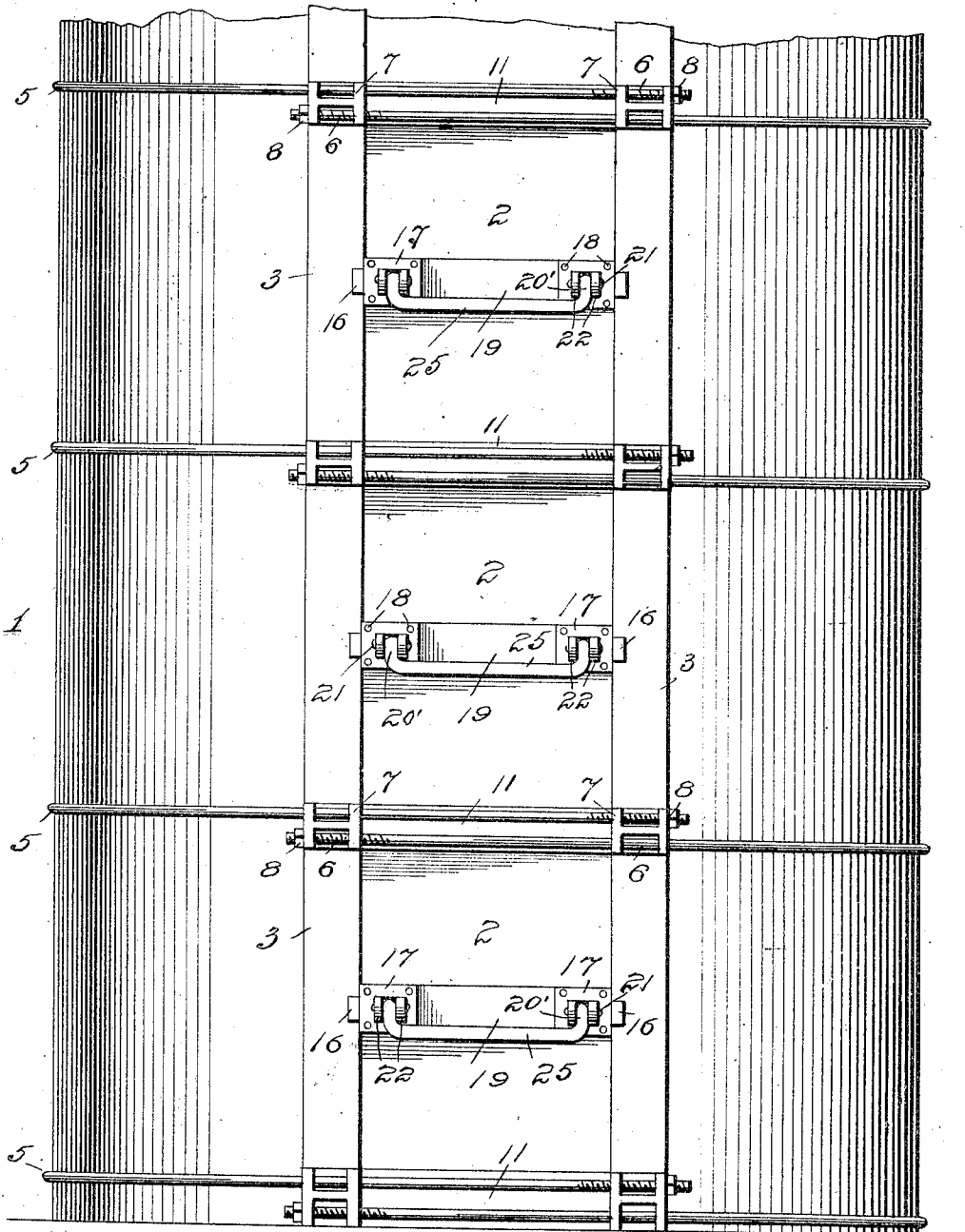
SILLO.

APPLICATION FILED MAY 27, 1911.

1,039,089.

Patented Sept. 24, 1912.

2 SHEETS—SHEET 1.



Witnesses

E. B. Duffy
R. B. Hogner

FIG. 1.

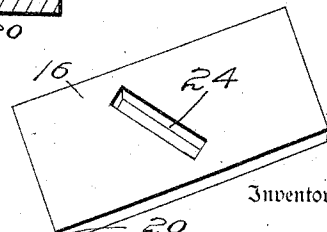
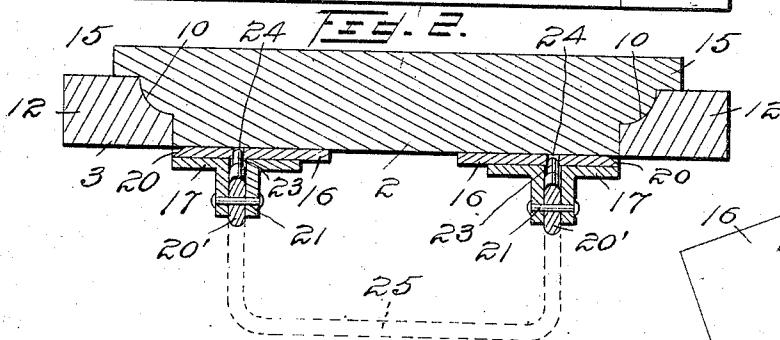
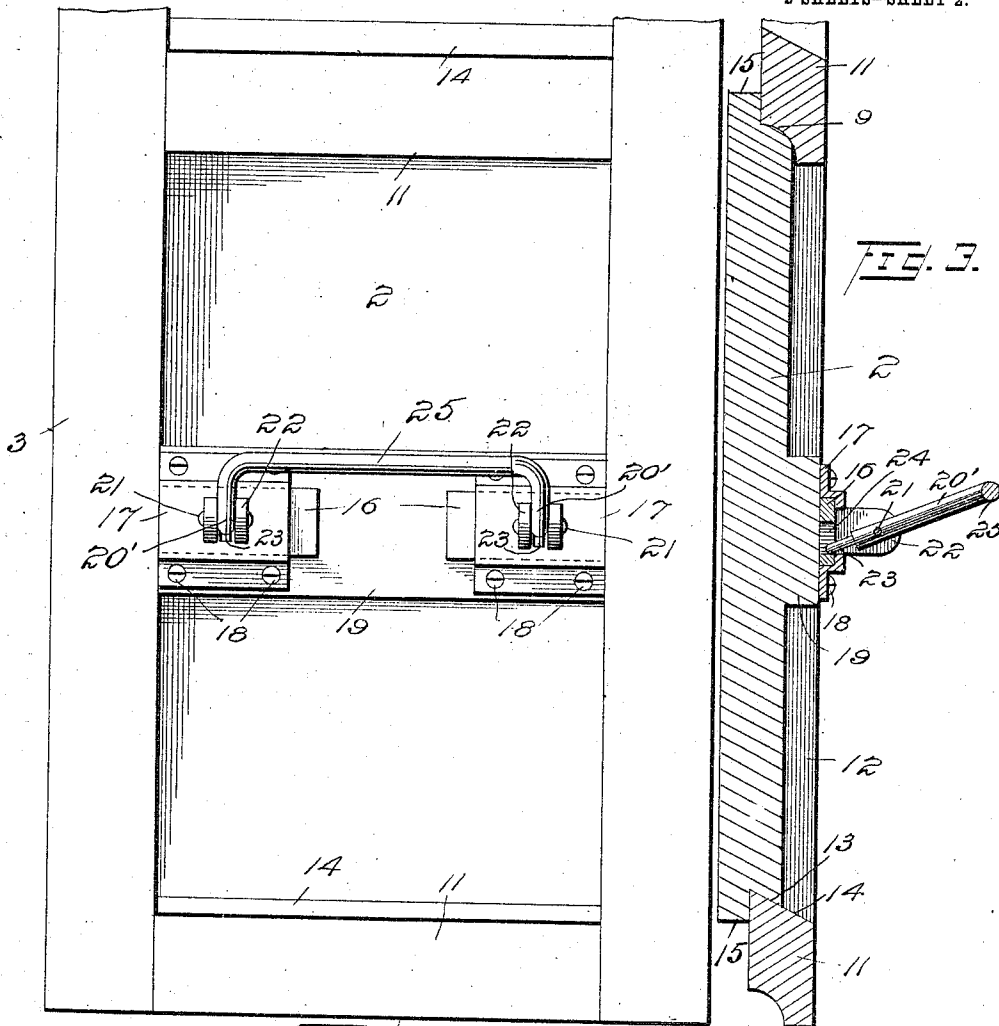
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2 SHEETS—SHEET 2.



Witnesses

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Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN BORRUSCH, OF MARYVILLE, MISSOURI.

SILO.

1,039,089.

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To all whom it may concern:

Be it known that I, JOHN BORRUSCH, a citizen of the United States, residing at Maryville, in the county of Nodaway and State of Missouri, have invented certain new and useful Improvements in Silos, of which the following is a specification.

This invention relates to improvements in silos and has for its object to provide a door lock for silos which are placed with the doors, one above the other, from the bottom to the top of the silo.

A further object of the invention is to so construct the door and its frame that the door may expand or contract without binding, allowing the door to be easily opened at all times without the necessity of pounding it loose, the door being absolutely water tight.

In the accompanying drawings:—Figure 1 is an elevation illustrating the application of the invention to a silo. Fig. 2 is a front elevation of one of the doors of the silo, with the lock attached thereto. Fig. 3 is a central vertical section of Fig. 1. Fig. 4 is a horizontal section taken on line 4—4 of Fig. 1, and Fig. 5 is a detail perspective view of one of the lock bolts.

Referring to the drawings for a more particular description of the invention, 1 indicates the silo, 2 the respective doors of the silo, which are arranged in the frames 3, one above the other, as shown in Fig. 1, 4 the door locks and 5 the hoops for reinforcing the silo, said hoops passing around the latter with their opposite ends threaded, as at 6, and extending through the castings 7. Nuts 8 are screwed on the projecting ends of the hoops and serve as a means for securing the latter in place and for tightening the hoops as occasion may necessitate. The doors 2 are provided at their top and at opposite side edges with the one-quarter moldings 9 and 10 which snugly fit in corresponding recesses in the cross pieces 11 and side pieces 12 of the frames. The bottom edges of the doors are beveled, as at 13, and fit on the beveled or inclined upper edges 14 of the cross pieces, insuring a water tight joint. The doors are further provided at their top and bottom edges and also at opposite side edges with the projecting flanges 15, which form a lap joint with the frames,

fitting against the inner faces of the cross and side pieces thereof. By constructing the doors and the frames in this manner, it is evident that the doors are given a chance to expand or contract without binding, and may be opened without the necessity of pounding the doors loose.

The locks for the doors comprise the bolts 16 mounted to slide laterally in the keeper plates 17 attached by the screws 18 or other equivalent means to the cross pieces 19. The outer ends of the bolts are beveled, as at 20, to engage the outer inner edges of the side pieces of the frames. The lock for each door further comprises the U-shaped bail or foot piece, the legs 20 of which are pivoted, as at 21, between off-sets or ears 22 cast with the keeper plates 17. The pivoted ends of the legs are provided with the reduced extensions 23 which work in the inclined slots 24 formed in the bolts 16. The central portion 25 of each bail forms a foot piece for the operator and constitutes one rung of a ladder.

In practice, the operator climbs to the point desired and opens a door by raising the bail from the dotted line position indicated in Fig. 3 to the full line position which retracts the bolts 16 to the position shown in Fig. 2, when the door may be readily opened. To close the door the bail is swung down to the position shown in Fig. 1 which projects the bolts 16 into locking position.

Particular attention is invited to the fact that the bail is made in one piece, which makes it very strong and durable, whereas, it would otherwise become weakened after a little use.

From the foregoing description taken in connection with the drawings, it is thought that the construction and advantages of this invention will be readily understood without requiring a more extended explanation.

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

In a silo, the combination with the door frames, of a series of doors arranged one above the other in said frames, and door locks for the respective doors, each lock comprising a pair of keeper plates attached to a door and provided with pairs of outwardly projecting laterally spaced off-sets,

bolts mounted to slide laterally in said keeper plates and provided at their outer ends with beveled portions and in their bodies with inclined slots and a U-shaped
5 bail made in one piece pivoted at opposite ends in the off-sets of the keeper plates and provided with reduced cylindrical extensions working in the slots of the bolts the

central member of the bail forming a step for the operator. 10

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

JOHN BORRUSCH.

Witnesses:

GEO. R. ELLISON,

J. S. SHINABARGAR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."