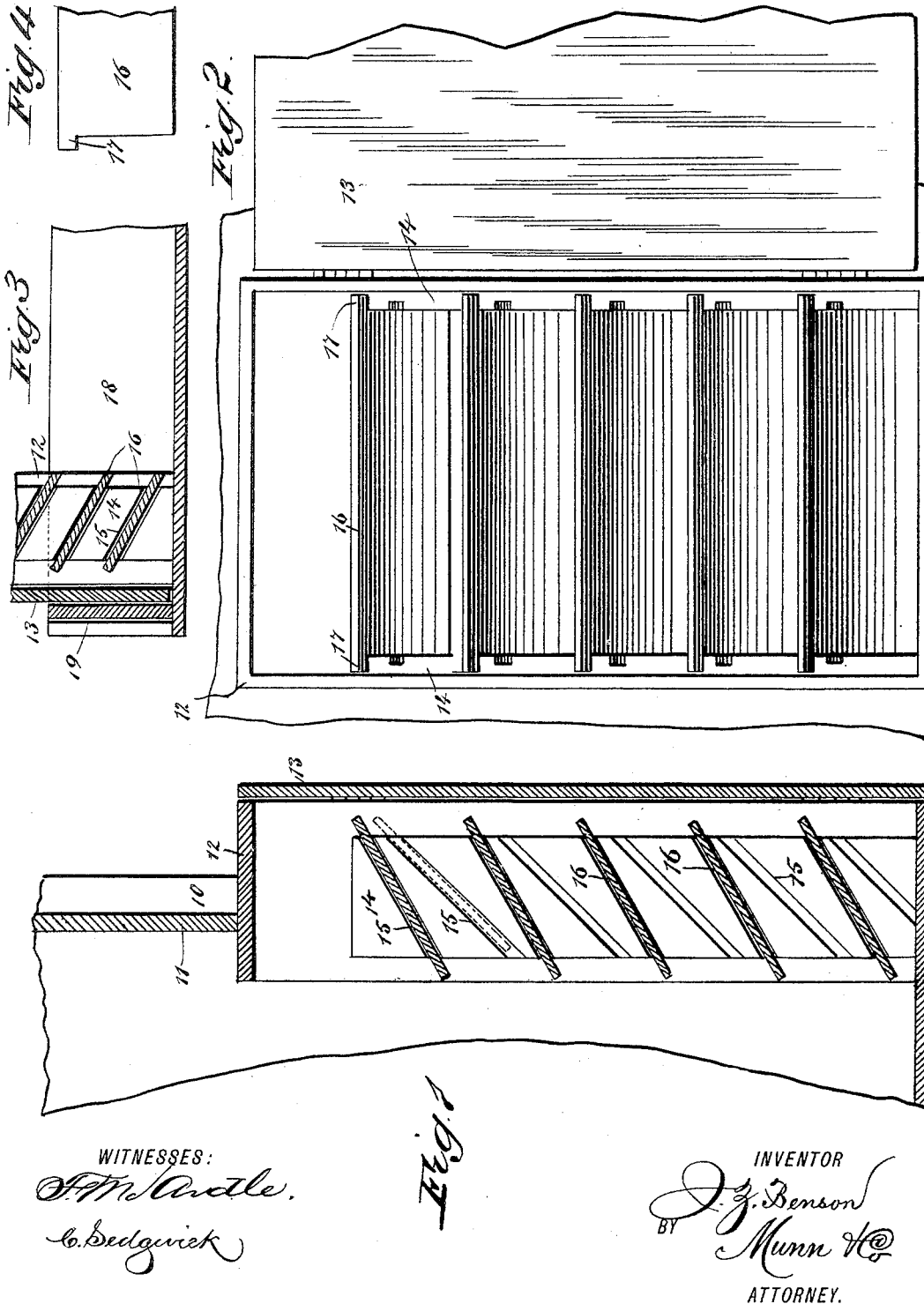


(No Model.)

J. Z. BENSON.
CORN CRIB.

No. 458,936.

Patented Sept. 1, 1891.



WITNESSES:

F. M. Apple.
C. Sedgwick

Fig. 1

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JOHN Z. BENSON, OF LAWN HILL, IOWA.

CORN-CRIB.

SPECIFICATION forming part of Letters Patent No. 458,936, dated September 1, 1891.

Application filed April 24, 1891. Serial No. 390,272. (No model.)

To all whom it may concern:

Be it known that I, JOHN Z. BENSON, of Lawn Hill, in the county of Hardin and State of Iowa, have invented a new and Improved Crib-Door, of which the following is a full, clear, and exact description.

My invention relates to improvements in doors for corn-cribs and other granaries, and which is also adapted for use on vehicles.

The object of my invention is to produce a simple and convenient form of door which may be adjusted so as to afford ventilation for the crib or other building or vehicle in which it is secured, which is adapted for adjustment to suit the various kinds of grain, and which is constructed in such a manner that it may be arranged so that the grain may be easily removed.

To this end my invention consists in a door constructed substantially as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a vertical section of a door embodying my invention, showing the same applied to a crib. Fig. 2 is a broken front elevation of the same, the door being open. Fig. 3 is a sectional view and shows the application of the door to a wagon-body; and Fig. 4 is a broken detail view of one of the slides.

The crib 10 is provided with the usual vertical side walls 11, in one of which is set the door-frame 12, which is arranged so that it will project inward beyond the wall 11, and this frame is provided with a swinging portion 13, which is adapted to close the opening through the frame, and which is substantially like an ordinary door. On opposite sides of the frame are vertical side pieces 14, which are provided at intervals with inwardly-inclined grooves 15, in which fit slides 16, which slides extend transversely between two side pieces, and the grooves 15 in the said side pieces are arranged so as to have different inclinations, in order that the slides may be adjusted according to the kind of grain that is held in the crib, as will be hereinafter described. The slides 16 are provided at the ends and on their outer edges with projecting

shoulders 17, which extend beyond the edges of the grooves 15, and thus prevent the slides from dropping down through the grooves.

When the device is applied to a wagon-body, the wagon 18 is provided with the usual end-board 19, and the door is secured in the wagon-body just forward of the end-board 19, and it is obvious that the height of the door should correspond approximately with the depth of the wagon-body. The door may also be applied to a railway-car, or it may be applied to any receptacle adapted to hold grain.

The door is used in the following way: The lower slides of the frame are preferably arranged in the grooves having the greatest inclination, so that the bottom slide will rest on the bottom of the crib and prevent any of the grain from running out, and the slides above are arranged in the grooves of the greatest inclination or in those of less inclination, according as the grain is fine or coarse, as it is obvious that it will be necessary to give them great inclination where the grain is fine, as otherwise it will work through between the slides and run to waste. It will be seen by reference to Fig. 1 that there is an air-space between the several slides, and when the crib is filled with the grain the air will pass inward between the slides and into the crib, so as to ventilate the same, and the inclination of the slides will prevent the grain from running out between them. When a small portion of grain is to be removed from the crib, one of the slides is drawn out and a portion of the grain is allowed to run into a receptacle which may be arranged to receive it, and if the grain is to be shoveled out one or more of the bottom slides are removed, and the grain may then be easily shoveled up from the floor. Where the door is to be used in a wagon-body or in a car, the operation is substantially the same. When the door is to be used for ventilating purposes, the swinging portion 13 is thrown open, so that the air may pass freely between the slides.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, in a crib-door, with the door-frame having on its sides inclined grooves open from end to end to prevent the

lodgment of grain, of slides fitting in the grooves and provided at their outer corners with shoulders projecting beyond the grooves to limit the inward movement of the slides, substantially as set forth.

5 2. The combination, in a crib-door, with the door-frame having series of inclined grooves, the grooves of one series extending at a dif-

ferent angle from those of the other series, of a series of slides adapted to fit the grooves of either series, according to the character of the grain, substantially as set forth.

JOHN Z. BENSON.

Witnesses:

ROBERT SMITH,
LAUREN A. BENSON.