

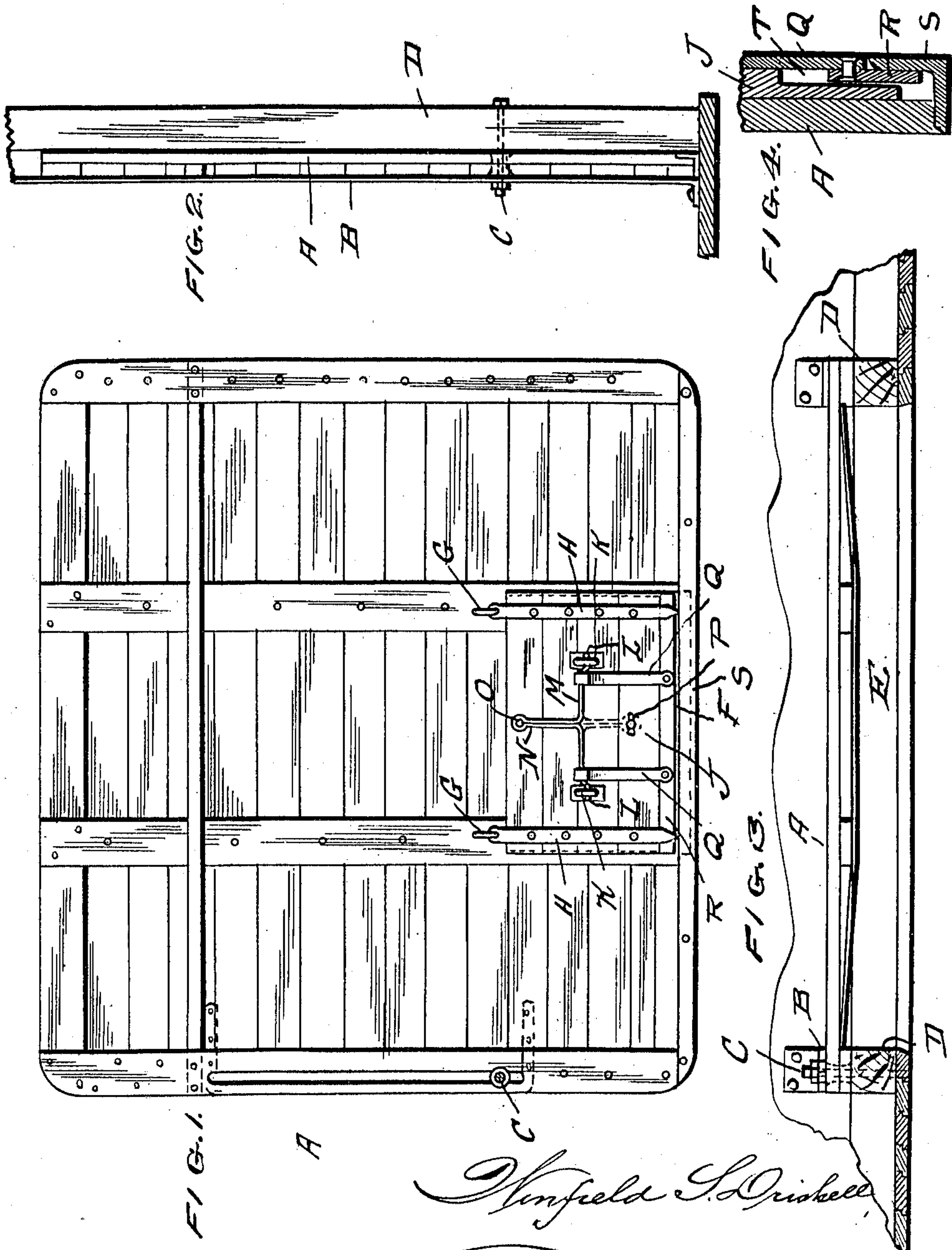
W. S. DRISKELL.

GRAIN CAR DOOR.

APPLICATION FILED MAY 17, 1909.

945,381.

Patented Jan. 4, 1910.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## GRAIN-CAR DOOR.

945,381.

Specification of Letters Patent.

Patented Jan. 4, 1910.

Application filed May 17, 1909. Serial No. 496,542.

*To all whom it may concern:*

Be it known that I, WINFIELD S. DRISKELL, a citizen of the United States, residing at Gretna, in the county of Sarpy and State of Nebraska, have invented certain new and useful Improvements in Grain-Car Doors, of which the following is a specification.

My invention relates to improvements in grain car doors, and the leading object of my invention is the provision of a door of this character which will permit the entire opening of the complete door or which will allow for the opening of only a portion of the door as circumstances require, and which improvements will be of the simplest, cheapest and most durable construction to insure a thoroughly efficient and practical door.

To attain the desired object, my invention consists of a grain car door embodying novel features of construction and combination of parts substantially as disclosed herein.

Figure 1, represents a front elevation of the door detached. Fig. 2, represents an end view. Fig. 3, represents a horizontal sectional view of the doorway or opening with my door in position, and Fig. 4, represents a detailed sectional view of a part of the door.

In the drawings: the letter A designates the door proper consisting of the horizontal strips and the upright connecting portions secured together to provide a strong durable door, and to one side of the door is secured the vertical slotted plate B, in which fits the pin or bolt C, this construction mounting the door in the side strips D of the car door opening E, and permitting the swinging bodily of one side of the complete door to permit the entire clearance of the doorway or opening of the car.

The lower portion of the car door is provided with an opening F over which is secured the staples G, to which are pivoted the upper ends of the straps H, upon which are secured the small or supplemental door J, said door J thus controlling the opening of the main door and permitting access to the car through said small opening of the main door.

Upon the small door is secured the pair of eyes K, in which is mounted the bent ends L of the shaft M, provided with an arm or handle N having an open end O to be engaged and retained in position by a turn-

buckle or catch P. Upon the shaft is secured the pair of links Q, to the lower end of which is connected the locking bar R, which by the movement of the handle on the shaft is lifted into and out of engagement with the keeper or catch S, the lower strip of the supplemental door being provided with a recess T which permits the vertical movement of the locking bar, this construction being shown most clearly in Fig. 4.

From the foregoing description taken in connection with the drawings, it will be readily understood that when desired to swing the door open entirely, it is simply necessary to throw the door to one side, and when desired to only open a portion of the main door, the arm on the shaft is released from the catch and when said arm is raised the latch bar is lifted out of engagement with the keeper and the small door can be swung upward to uncover the opening, and it will be understood that the car is equipped with the usual outside door and that my grain car door is mounted in the guideways D' on the inner side of the vertical posts at each side of the car door opening.

It is evident that a grain car door constructed in accordance with my invention is thoroughly efficient and practical in every particular and will commend itself as desirable and necessary.

I claim:

1. In combination with a car door having an opening formed in the lower side thereof, said door having a groove subtending the opening, of a supplemental door hinged to the main door and forming a closure for the opening therein, said supplemental door having a recess formed in its lower face, a plate mounted in the recess, a crank shaft secured to the supplemental door, a lever for operating the same, and links connecting the plate with the shaft, the revolution of the shaft serving to slide the plate up and down in the recess and into and out of the groove in the main door for locking the supplemental door in position and releasing the same.

2. In a device of the character described, the combination with the main door having an opening therein, of a supplemental door for the opening, eyes secured to the supplemental door, a crank shaft having its ends mounted in the eyes, the intermediate por-

tion of the shaft being formed into a handle, means for securing the end of the handle to the door, a plate slidably secured to the bottom of the supplemental door, and links  
5 connecting the plate with the shaft, the depression of the handle serving to revolve the shaft and force the plate into a recess formed in the main door to receive the same, said

plate thus locking the main and supplemental doors together in closed position. 10

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

WINFIELD S. DRISKELL.

Witnesses:

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