HENRY STAHLNECKER.

Improvement in Doors for Grain Cars.

No. 123,056. Patented Jan. 23, 1872.

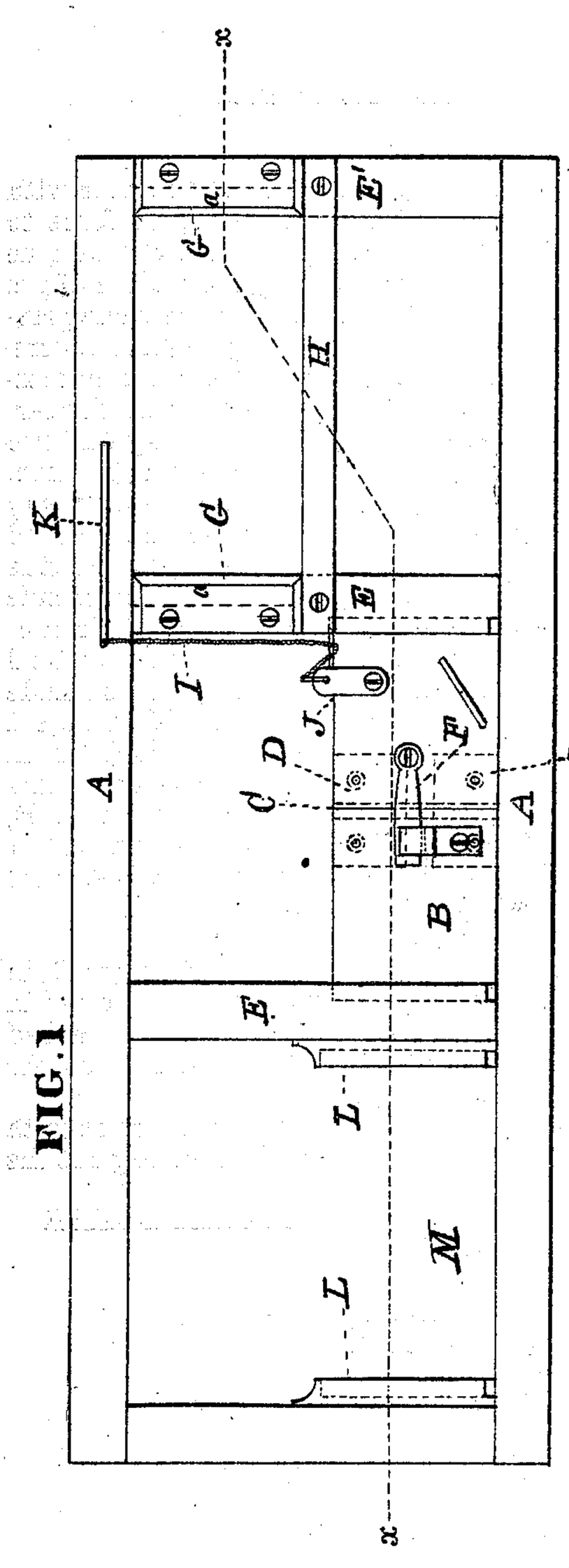

FIG. 1

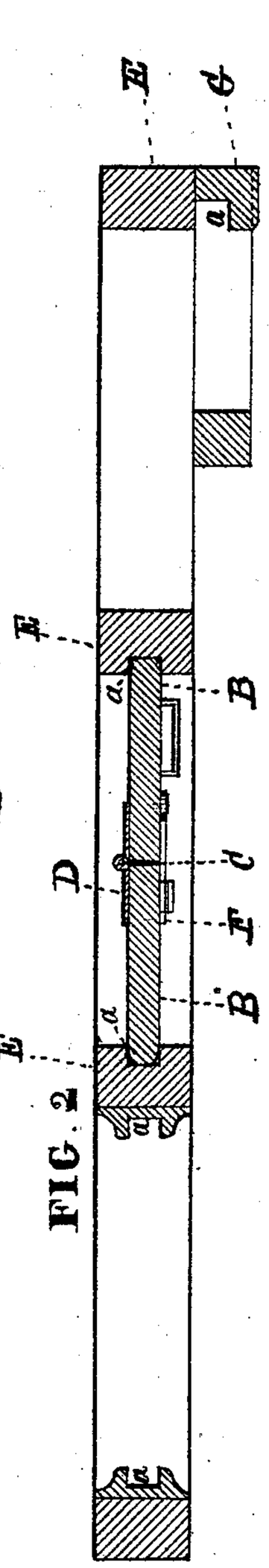

FIG. 2

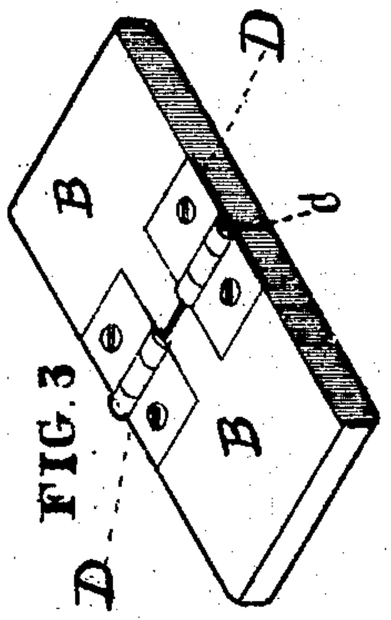

FIG. 3

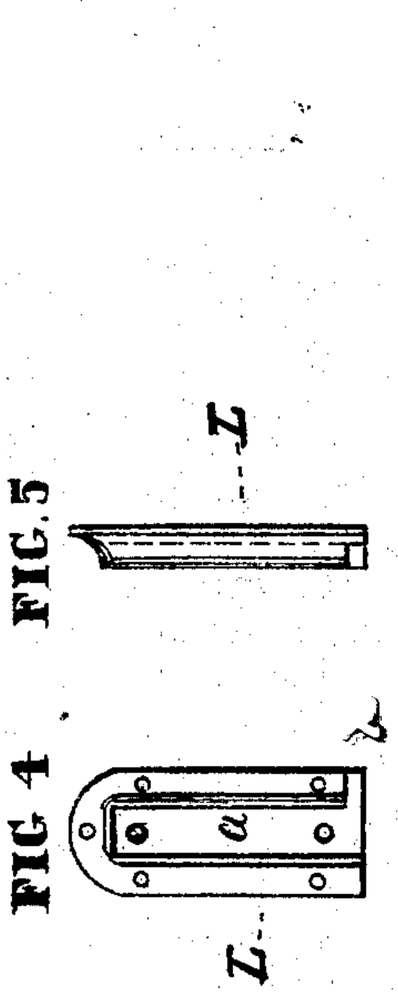

FIG 4 FIG. 5

WITNESSES

Thomas L. Bewley.
R. J. Hoffman

INVENTOR

Henry Stahlnecker
By His Attorney
Stephen Ustick

UNITED STATES PATENT OFFICE.

HENRY STAHLNECKER, OF ALLENTOWN, ASSIGNOR TO HIMSELF AND JOHN SMYLIE, JR., OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DOORS FOR GRAIN-CARS.

Specification forming part of Letters Patent No. 123,056, dated January 23, 1872.

Specification describing an Improvement in Doors for Grain-Cars, invented by HENRY STAHLNECKER, of Allentown, in the county of Lehigh and State of Pennsylvania.

The object of my invention is such a construction and connection of the door with the door-frame as will prevent the waste of grain incidental to other modes of construction. The nature of the invention consists of a double door, which is hinged at the middle and vertical joint, and the outer vertical edge connected with grooves in the inner edge of the door-posts or in pieces confined to the posts. The hinge is connected with the outside of the bisected door, and the hinged edges being square, the door cannot be opened outward, and consequently the pressure of grain upon it only tends to tighten the joints.

Figure 1 is an inside view of a side of a car with the improved door in position. Fig. 2 is a longitudinal section at the line *x x* of Fig. 1. Fig. 3 is an isometrical view of the outer side of the door B. Figs. 4 and 5 are side and edge views of one of the grooved pieces L.

Like letters in all the figures indicate the same parts.

A represents a side of a grain-car constructed in the usual manner. B is the door, which is bisected vertically in its middle. The inner edges form a square joint, C, and are connected by means of hinges D, as shown in detail in Fig. 3. The outer edges of the door, when it is placed in position as seen in Figs. 1 and 2, occupy the grooves *a a* in the posts E E. The edges are rounded at their corners, as represented, to admit of an easy entrance into the grooves when the two parts of the door are brought out of a straight line. There may be a very tight fit of the edges of the door with the grooves without requiring much force to bring the two halves into a straight line, as shown in Fig. 2, by pressing the middle edges forward, as the force acts upon the same principle as when applied to toggle-joint levers. At the bottom of the grooves *a a* are cross-grooves *b* for the cleaning out of the former. F is an ordinary latch for confining the two halves of the door in its straight position. When the door is removed from the door-way it is placed with its outer edges in the grooved pieces G G, its lower edge resting on the side rail H. It is connected with the upper side rail H′ by means of the chain I, plate-iron J, and staple K. Instead of forming the vertical grooves *a a* in the door-posts they may be made in pieces L L, shown in the space M in Figs. 1 and 2. One of the pieces is shown in detail in Figs. 4 and 5. They are arranged in the manner represented on the inside of the posts E E, and confined by means of screws or nails. I prefer making these pieces of iron, yet hard wood will answer the purpose.

I claim as my invention—

1. The bisected door B having hinges D, in combination with the grooves *a a* formed in the posts E E or in separate pieces attached thereto, substantially in the manner and for purpose above described.

2. The cross-grooves *b b*, in connection with the grooves *a a*, to provide for cleaning out the latter, as specified.

HENRY STAHLNECKER.

Witnesses:
E. F. MUNSON,
GEO. W. STEIN.