

L. DIMICK.
DOOR FOR GRAIN CARS.
APPLICATION FILED JUNE 5, 1908.

915,566.

Patented Mar. 16, 1909.
2 SHEETS—SHEET 1.

Fig. 1.

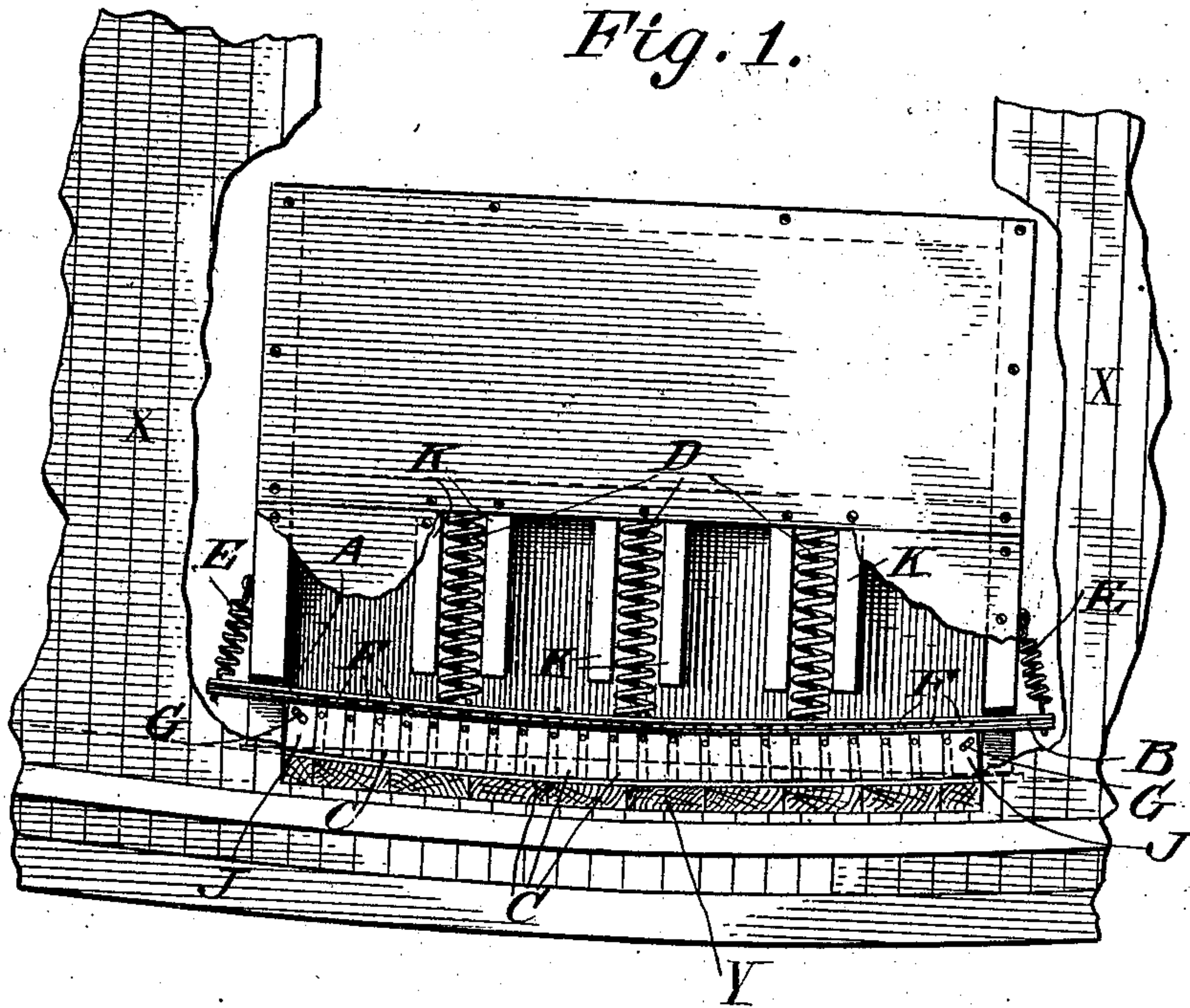


Fig. 4.

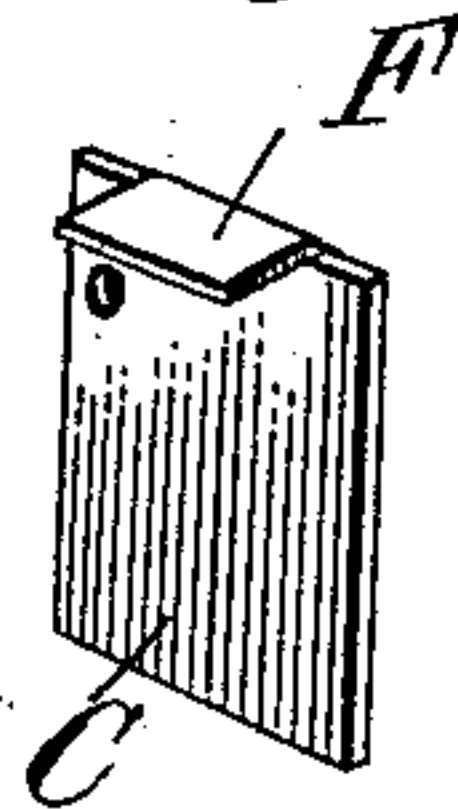


Fig. 2.

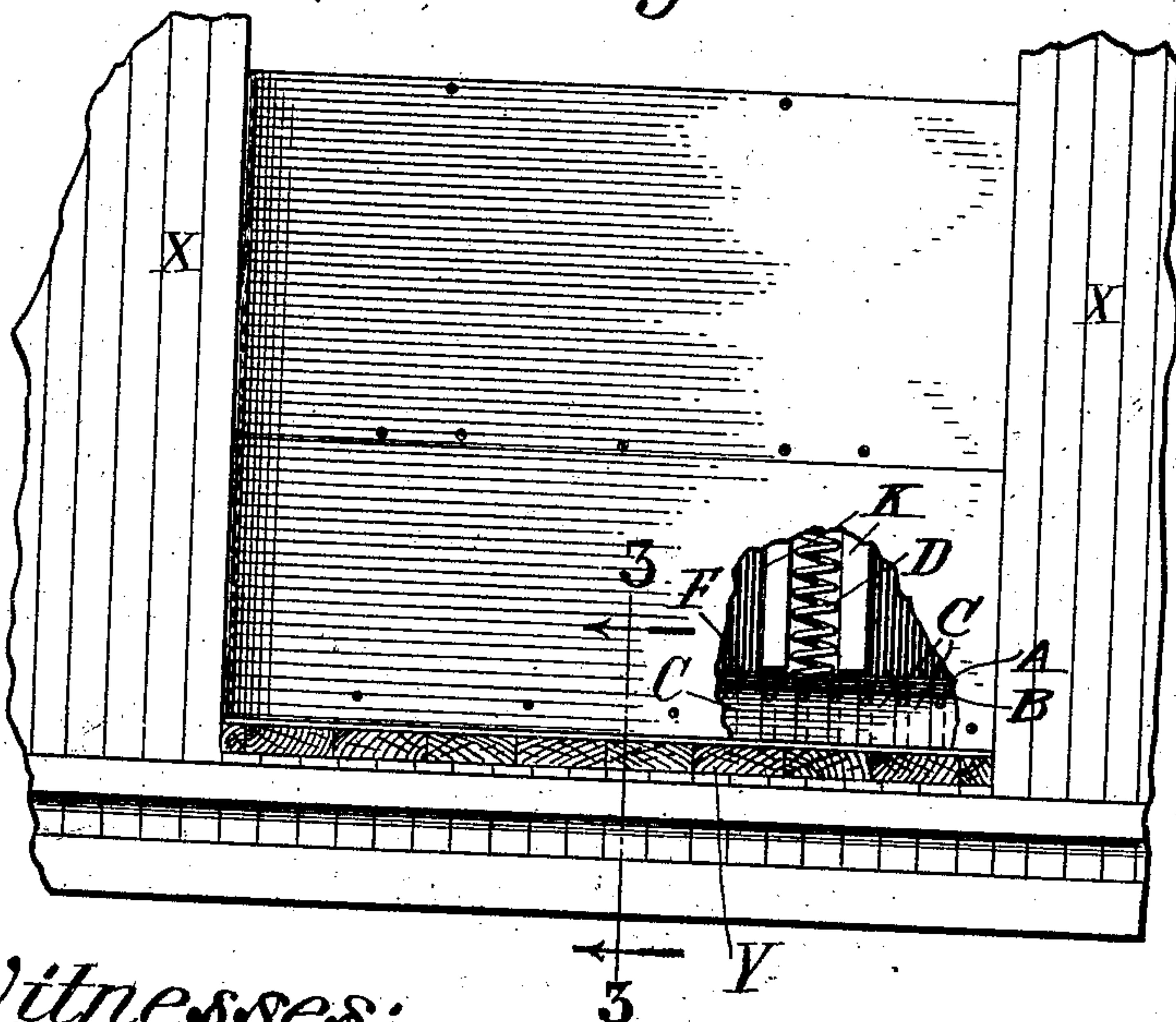
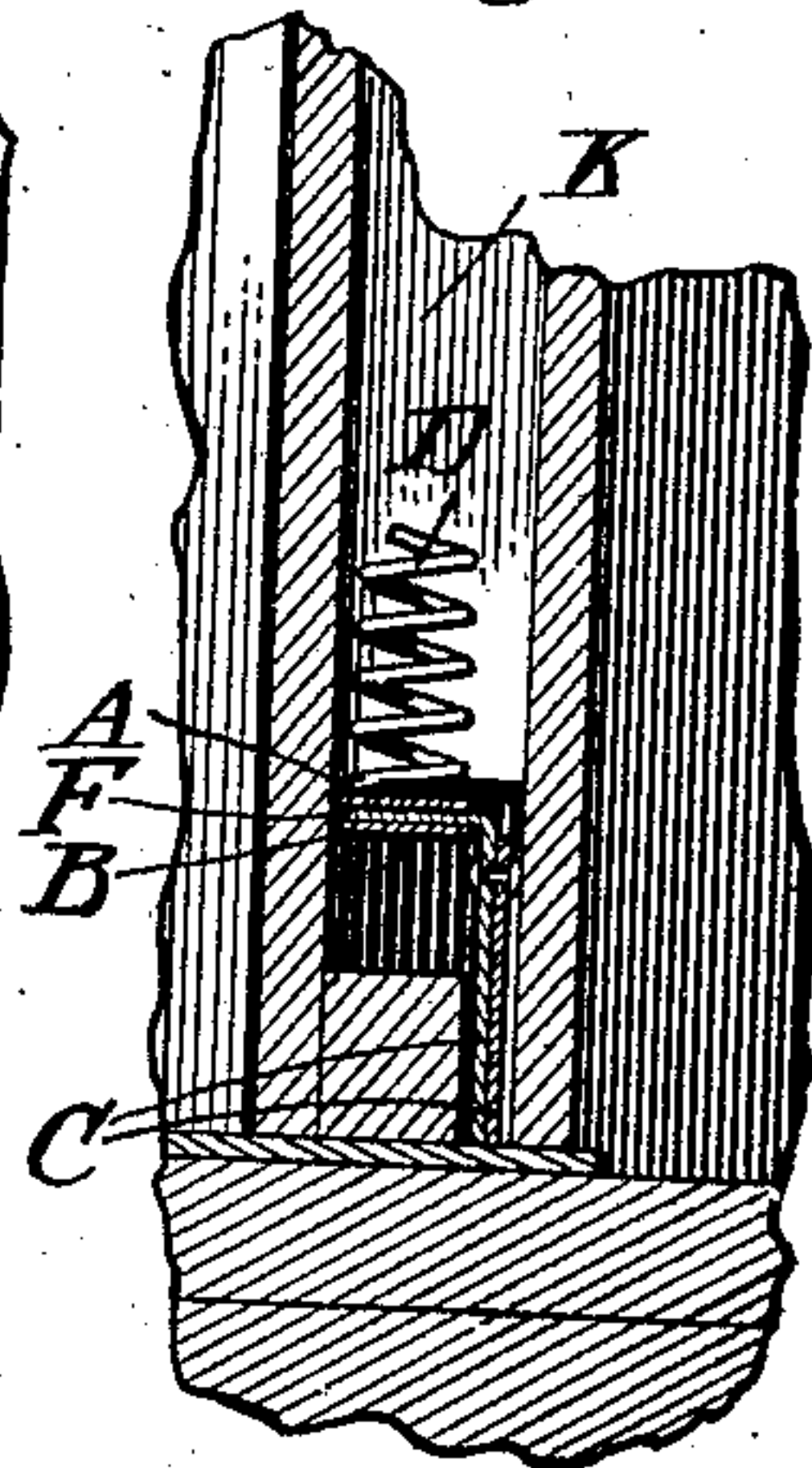


Fig. 3.



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Fig. 5.

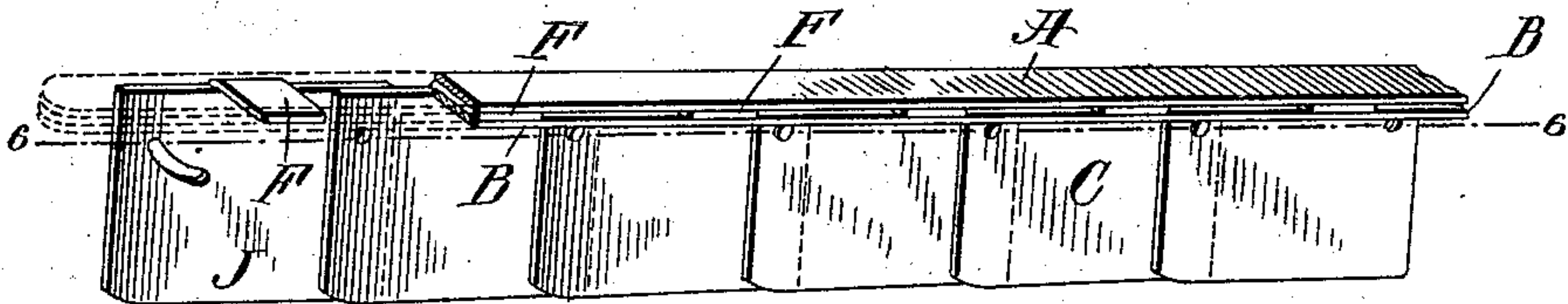
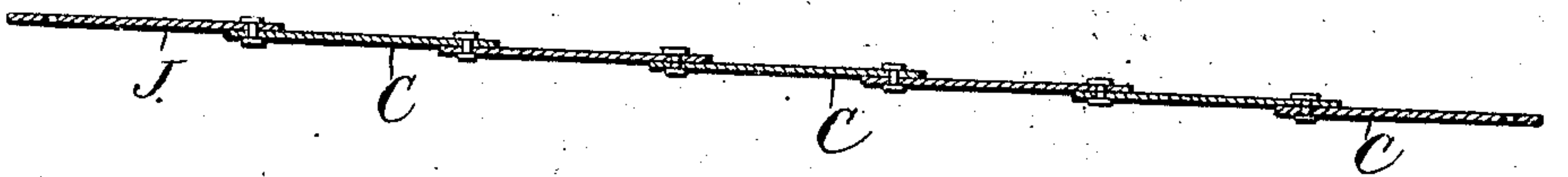


Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

LILLIE DIMICK, OF SOUTH WHITLEY, INDIANA.

DOOR FOR GRAIN-CARS.

No. 915,566.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed June 5, 1908. Serial No. 436,957

To all whom it may concern:

Be it known that I, LILLIE DIMICK, a citizen of the United States, residing at South Whitley, Whitley county, State of Indiana, have invented an Improvement in Doors for Grain-Cars, of which the following is a specification.

My invention is an attachment for the doors of grain cars for the purpose of forming a close joint with the floor.

Broadly stated, it consists of a series of plates which are pivoted together so as to be movable with each other, and arranged in vertical position, and connected with transverse springs in such manner that their lower edges are held in close contact with the floor of the car when depressed by the load therein.

The details of construction, arrangement, and operation of my invention are as herein-after described, and illustrated in the accompanying drawings in which—

Figure 1 is in part a side view of a portion of a grain car provided with my improved door attachment, portions of the car body being broken away. Fig. 2 is a side view of a portion of a car body with my improved grain door attachment, a portion of the door being broken away to show the interior construction. Fig. 3 is a cross section of the grain door and adjacent portion of the car body. Fig. 4 is a perspective view of one of the pivoted plates constituting a part of the door attachment. Fig. 5 is a perspective view of a portion of the attachment removed from the door proper. Fig. 6 is a horizontal section on the line 6—6 of Fig. 5.

The car door is adapted to slide vertically. The principal parts embodying my invention are a series of flat plates C and J, and two narrow plates A and B which are arranged transversely of the door and inclosed within the same. The plates C, J, are arranged to overlap, as shown in Figs. 5 and 6, and are pivoted together at their upper corners. Each plate is provided with a horizontal tongue F which projects forward between the narrow plates A and B. The ends of the latter project through slots in the sides of the door and are supported by coil springs E, which are arranged exterior to the side edges of the door. Coil springs D are arranged above the narrow spring plates A, B, between vertical guides K, and press upon the plates A, B, as shown. It will be noted that the central spring is somewhat longer than the other two. The two end plates J are

provided with diagonal slots G which receive pins secured in the door and on which they work or slide freely. The pins aid in holding the row of plates in due position.

It is apparent that the plates C, J, work freely on each other in a vertical plane, and that they will be kept pressed down upon the floor of the car whatever be its curvature or depression in consequence of the weight of the load carried by the car. Thus my attachment preserves at all times a close joint between the door and the floor of the car so that no grain or other commodity with which the car may be filled can escape at that point. In practice, the attachment, save the outer coil springs, is inclosed in the door and thus protected from contact with any object save the floor of the car. The side edges of the door run in grooves provided at the sides of the door-way, and the door is raised and lowered by any convenient means.

What I claim is:—

1. The improved door attachment comprising a series of plates arranged vertically and pivoted together so as to work freely in a vertical plane, and a transverse spring carrier for said plates with which they are loosely connected, as shown and described.

2. A door attachment for the purpose specified comprising a series of flat plates pivoted together so as to work freely on each other in a vertical plane, a horizontal spring with which the said plates are connected and other springs for bearing vertically upon the horizontal spring, substantially as described.

3. The combination with a door of an attachment for forming a close joint at the lower edge of the same, the attachment comprising a series of plates riveted together so as to work freely on each other in a vertical plane, a spring extending transversely of the door and with which the said plates are connected, and springs for depressing the plate springs between the side edges of the door, substantially as described.

4. The combination with a door and plate springs arranged transversely thereof and one overlying the other, of plates which are pivoted together so as to slide freely on each other in a vertical plane and provided with horizontal tongues which project between the two springs, substantially as shown and described.

5. The combination with a car-door having slots in its side edges, of a plate spring arranged transversely and projecting through

said slots, coil springs attached to the ends of the transverse spring and extending above the same, and a series of plates which are pivoted together and loosely connected with
5 the transverse spring, substantially as described.

6. The combination with a car-door of a series of plates pivoted together and a spring
10 are connected, and coil springs arranged above

the said spring and bearing thereon for depressing it along the central portion and thus forcing down the plates so that they normally project below the lower edge of the door, as shown and described.

LILLIE DIMICK.

Witnesses:

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CASH M. GROHAM.