

**No. 703,112.**

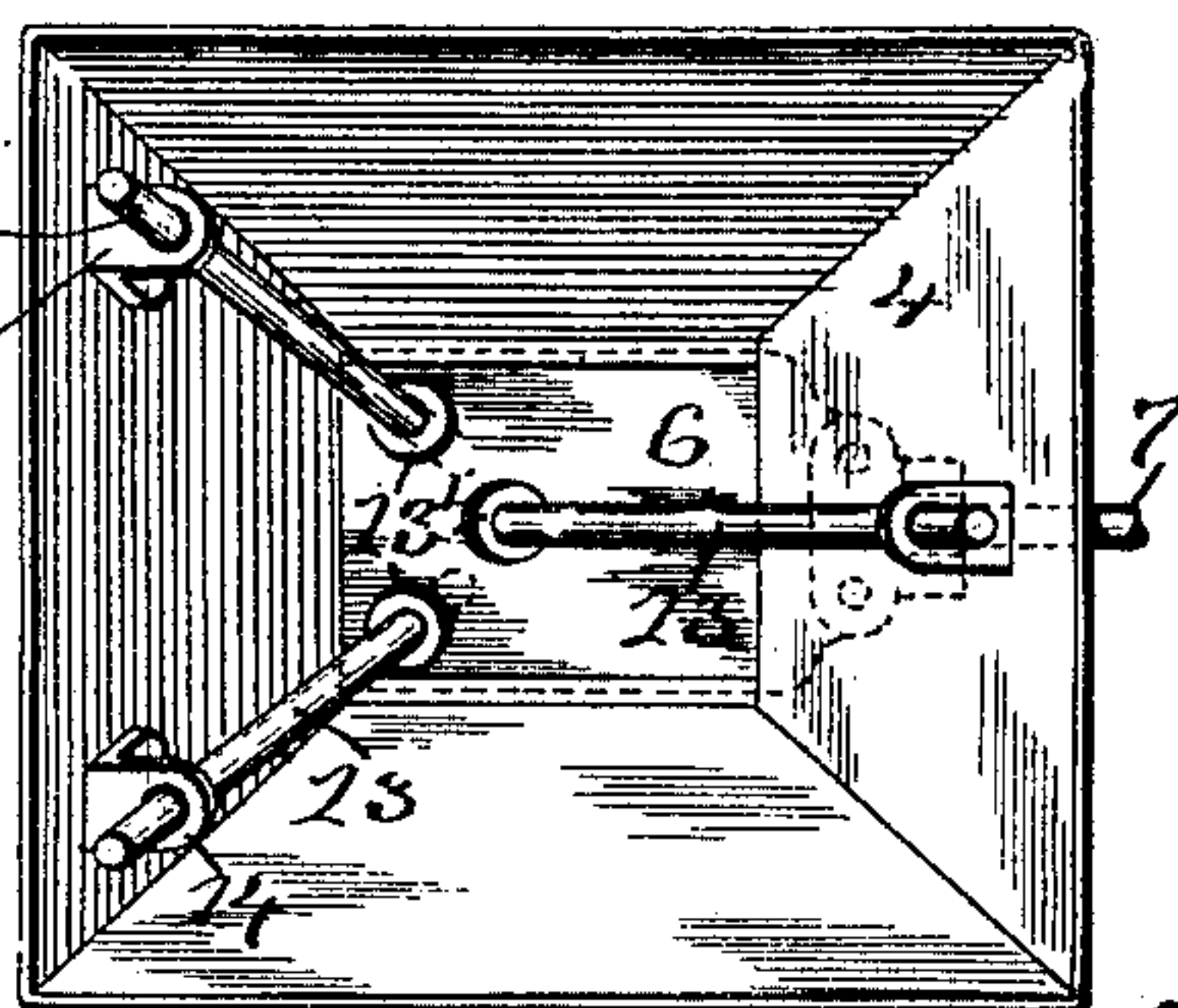
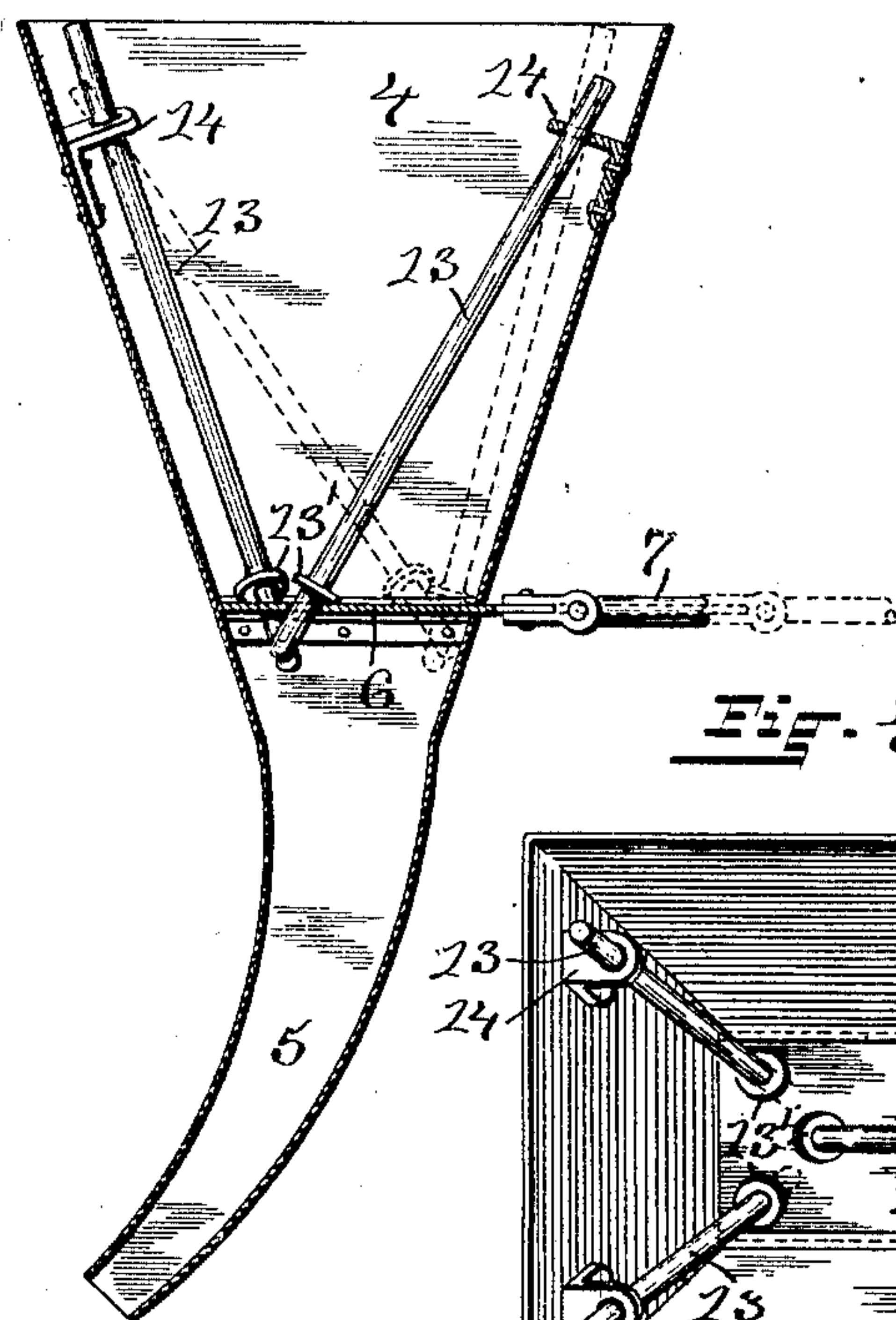
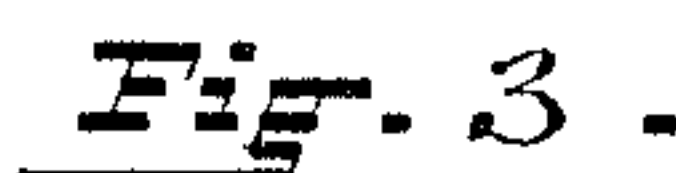
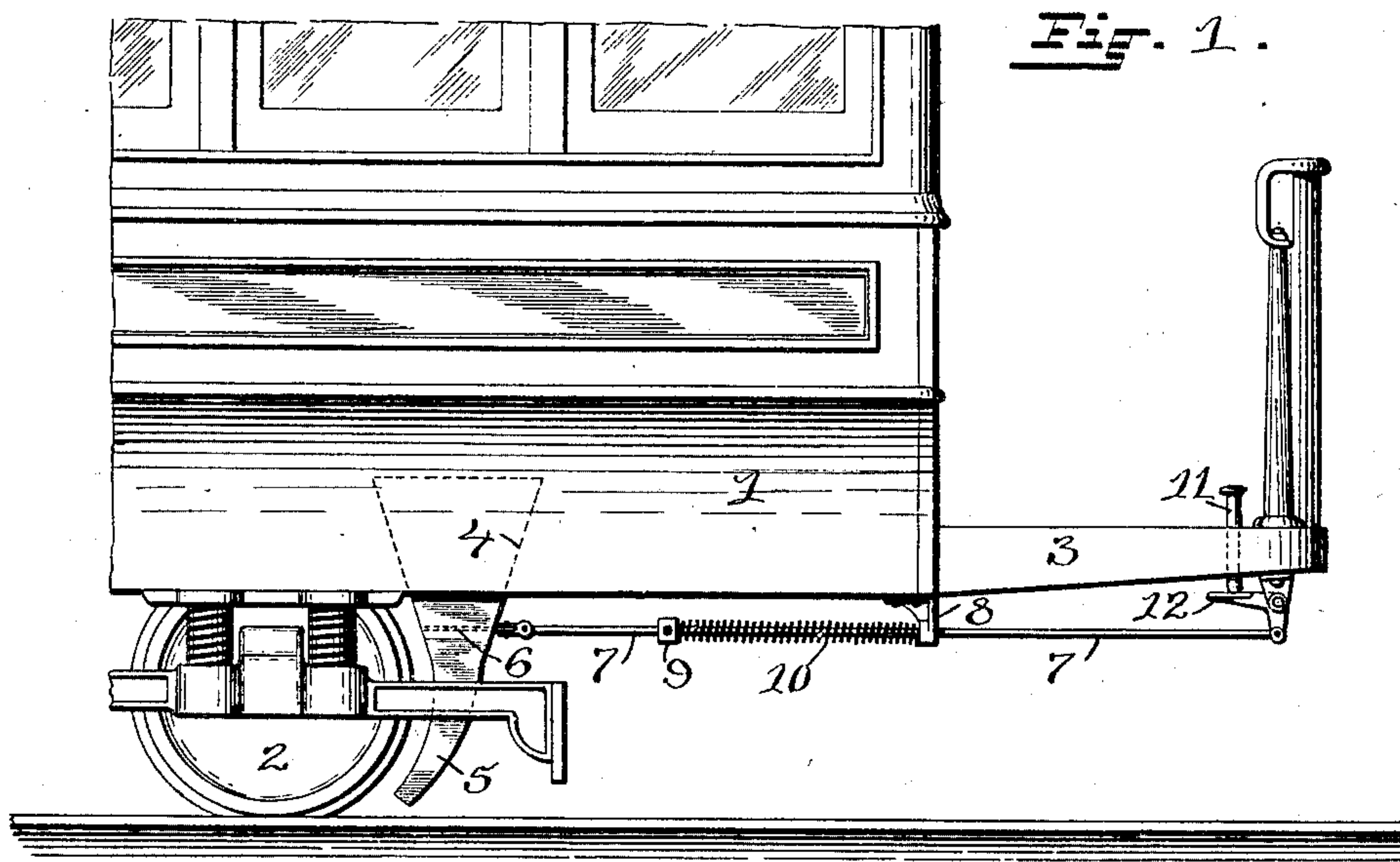
Patented June 24, 1902.

**J. L. CHEDELL & E. V. SCOTT.**

**SAND BOX.**

(Application filed Oct. 21, 1901.)

(No Model.)



**WITNESSES:**

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# UNITED STATES PATENT OFFICE.

JESSE L. CHEDELL, OF PROVIDENCE, AND EDWIN V. SCOTT, OF ARLINGTON, RHODE ISLAND.

## SAND-BOX.

SPECIFICATION forming part of Letters Patent No. 703,112, dated June 24, 1902.

Application filed October 21, 1901. Serial No. 79,353. (No model.)

*To all whom it may concern:*

Be it known that we, JESSE L. CHEDELL, residing at Providence, and EDWIN V. SCOTT, residing at Arlington, in the county of Providence and State of Rhode Island, citizens of the United States, have invented a new and useful Improvement in Sand-Boxes, of which the following is a specification.

This invention has reference to an improvement in sand-boxes, such as are used to supply sand to the rail of a railroad or the surface of a road.

The invention consists in the peculiar and novel construction of the agitating device and the mechanism for operating the same, as will be more fully set forth hereinafter.

Figure 1 is a partial side view of a street-railway car provided with our improved sand-box. Fig. 2 is a longitudinal sectional view of the sand-box, showing the position of the sand-agitating bars in solid and broken lines. Fig. 3 is a transverse sectional view of our improved sand-box. Fig. 4 is a top view of the sand-box looking down into the same and showing the slide controlling the discharge of the sand and the agitating-bars.

In sand-boxes used for sanding tracks or roads mechanical devices have been used to break up the sand, which is liable to cake. Such devices have usually a rotary motion and do not break up the mass of the sand in the sand-box. Damp sand, particularly if it contains impurities, is liable to pack in the sand-box above the breaking-up devices, so that no sand can be delivered.

The object of this invention is to agitate and break up the sand throughout the whole mass contained in the sand-box.

In the drawings, 1 indicates a street-car; 2, one of the wheels of the car; 3, the platform; 4, the hopper of the sand-box; 5, the discharge-spout; 6, the bottom, sliding in suitable ways, of the sand-box, by which the discharge of the sand is controlled, and 7 a rod connected with the sliding bottom 6 and extending through the abutment 8, secured to the car-body. A collar or adjustable abutment 9 is secured to the rod 7. A coiled-wire spring 10 surrounds the rod 7 and abuts against the abutments 8 and 9. The tension of the coiled spring acts to hold the bottom 6 in the closed position

and to push the sliding bottom into the closed position after it has been drawn out by pressure exerted on the pin 11, which acts on the bell-crank lever 12, connected directly with the rod 7, or by means of any suitable connection. The pressure exerted draws the rod 7 and the sliding bottom 6 forward against the force of the coiled spring 10, which when the pressure is released pushes the sliding bottom into place to close the sand-box.

The agitator consists of the agitating-rods 13, having each a collar or enlargement near its lower end. The ends extend through holes in the bottom 6 and have a loose fit in these holes. The collars or enlargements 13' on the rods 13 rest on the top of the sliding bottom and support the rods. The upper ends of the rods extend through holes in the brackets 14, in which they have a loose fit. The rods are preferably long enough to extend through the whole depth of the sand in the sand-box.

In the drawings we have shown a sand-box provided with three of the agitating-rods 13.

As each rod acts independent of the others the number of the rods used in a sand-box may be varied. We find that one of the rods will keep the sand from packing, and we prefer the use of three rods, as shown in the drawings, but do not wish to confine ourselves to the use of any fixed number of rods 13. When the sliding bottom 6 is drawn out to discharge sand, the lower ends of the rods move, with the bottom, into the positions shown in broken lines in Fig. 2, passing through the whole depth of the sand in the opening and the closing of the bottom, thereby loosening the sand, preventing packing, and insuring the delivery of the sand on the road.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A sand-box having a sliding bottom and a rod flexibly connected with the bottom and extending obliquely through the hopper, as described.

2. A sand-box having a sliding bottom and one or more rods flexibly connected with the sliding bottom and with the hopper by a sliding support, as described.

3. In a sand-box, the combination with the

hopper 4, the discharge-spout 5, the sliding bottom 6, and means for operating the same, of the rods 13, the enlargements 13' on the rods, and the brackets 14, whereby the opening and closing of the sliding bottom moves the rods through the sand, as described.

4. The combination with the car 1, the wheel 2, the hopper 4, the discharge-spout 5, the sliding bottom 6, the rods 13 13, the enlargements 13' on the rods, and the brackets 14, of the rod 7, the abutment 8 on the car, the abutment 9 adjustable on the rod 7, the coiled

spring 10, and means for operating the rod 7 to draw the sliding bottom outward against the force of the coiled spring, as described. 15

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JESSE L. CHEDELL.  
EDWIN V. SCOTT.

Witnesses:

J. A. MILLER, Jr.,  
ADA E. HAGERTY.