

No. 776,782.

PATENTED DEC. 6, 1904.

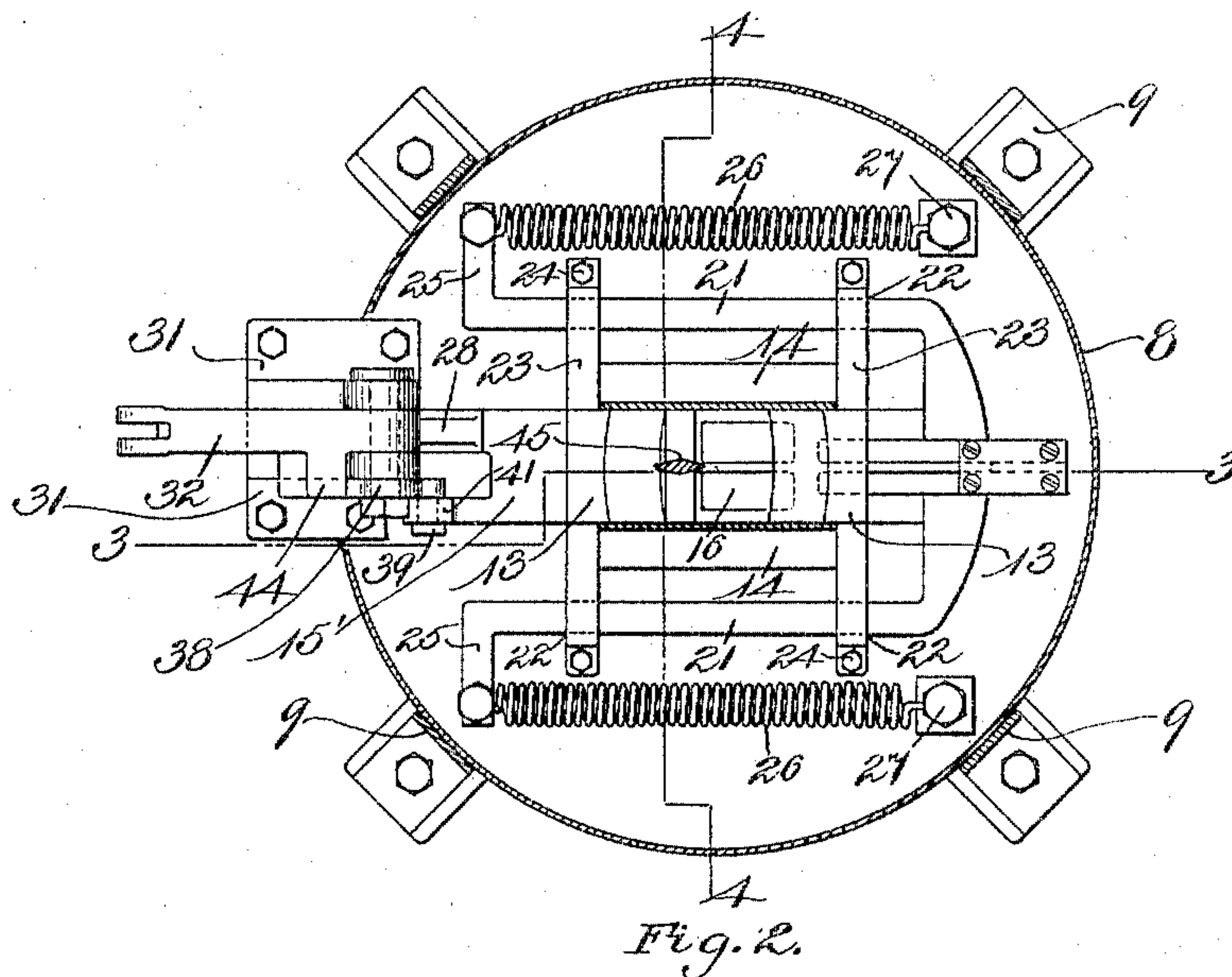
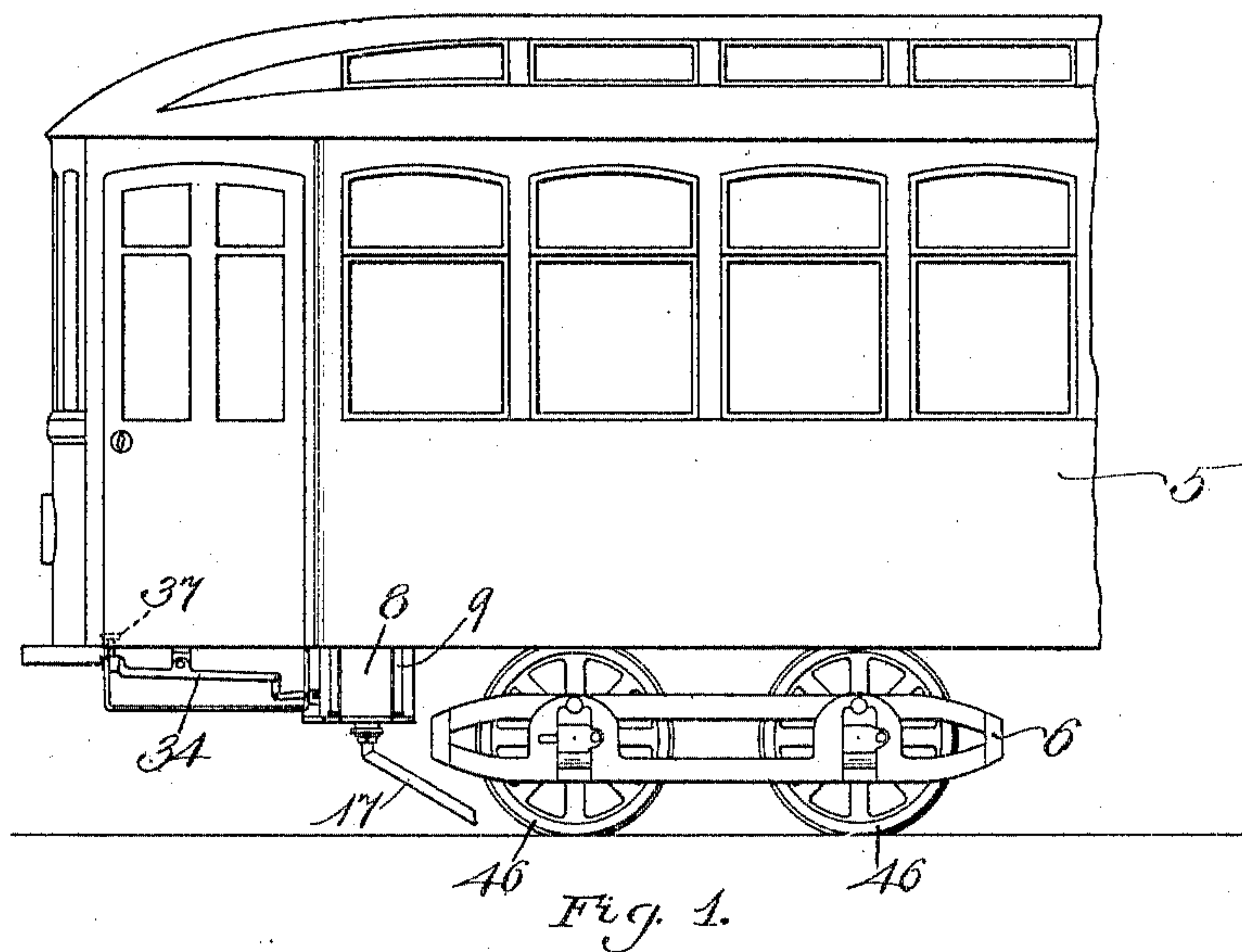
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# DEVICE FOR FEEDING SAND TO RAILROAD TRACKS.

APPLICATION FILED SEPT. 13, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

Franklin E. Low.

Sydney C. Taft.

*Inventor:*

*Giuseppe Gioiosa.*

By his Attorney *Charles N. Gooding*

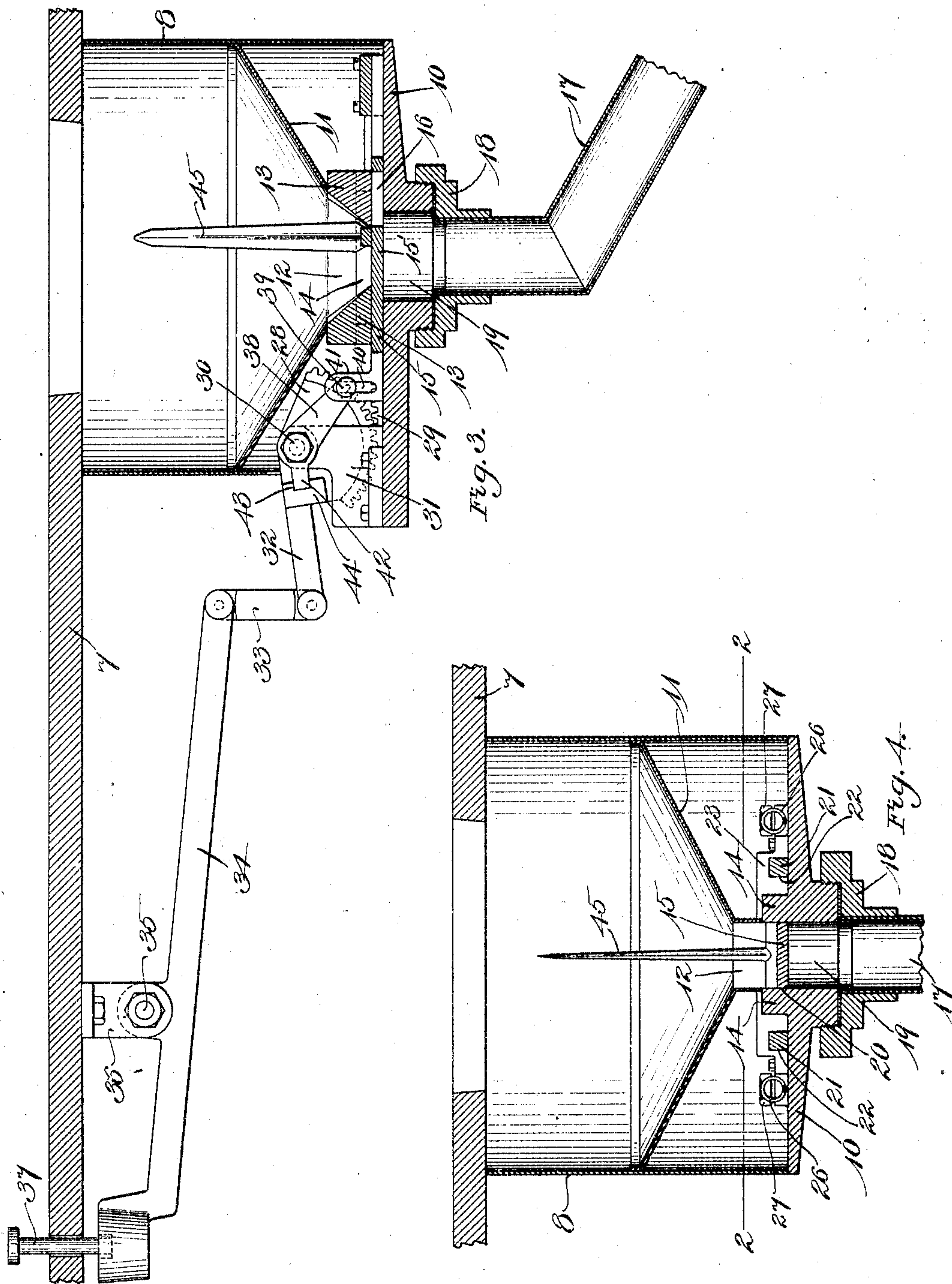
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# UNITED STATES PATENT OFFICE.

GIUSEPPE GIOIOSA, OF EAST BOSTON, MASSACHUSETTS.

## DEVICE FOR FEEDING SAND TO RAILROAD-TRACKS.

SPECIFICATION forming part of Letters Patent No. 776,782, dated December 6, 1904.

Application filed September 13, 1904. Serial No. 224,266. (No model.)

*To all whom it may concern:*

Be it known that I, GIUSEPPE GIOIOSA, a citizen of the United States, residing at East Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Devices for Feeding Sand to Railroad-Tracks, of which the following is a specification.

This invention relates to an improved mechanism for distributing sand upon railroad-tracks in advance of the wheels of the car to prevent said wheels from slipping upon the rails.

The object of the invention is to provide a cheap, durable, and easily-operated mechanism which will thoroughly agitate or stir the sand contained in a receptacle and feed the same to the rails in front of the wheels of the car.

The invention consists in the combination and arrangement of parts set forth in the following specification, and particularly pointed out in the claims thereof.

Referring to the drawings, Figure 1 is a side elevation of a portion of a car with my improved sand-distributing mechanism attached thereto. Fig. 2 is a plan section, partly in elevation, taken on line 2 2 of Fig. 4. Fig. 3 is a longitudinal section, partly in elevation, taken on line 3 3 of Fig. 2. Fig. 4 is a transverse section, partly in elevation, taken on line 4 4 of Fig. 2 looking toward the right in said figure.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings 5 is a portion of a car of any desirable construction, 6 the truck, and 7 the flooring of the car.

8 is a receptacle for the sand, made, preferably, of sheet metal in cylindrical form and fastened by brackets 9 9 to a base 10. In the interior of the receptacle 8 is a conical guide-plate 11, fast to the cylindrical portion 8 of the sand-receptacle and opening at its lower end into an aperture 12, formed in the bottom plate 13. The sides of the aperture 12 are closed by flanges 14 14, projecting upwardly from the base 10. Beneath the aperture 12 is located a slide 15, having a hole 16 extending therethrough, and beneath the slide 15 is attached a chute 17, which is connected

by a coupling 18 to the under side of the base 10, the interior of said chute being in alignment with a hole 19, formed in said base 10. The slide 15 is guided in ways 20, formed in the base 10, and consists as a whole of a central body portion 15' and two arms 21 21, which slide in ways 22 22, formed in brackets 23 23, fast to the base 10 and projecting laterally from opposite sides of the bottom plate 13, said bottom plate being fastened by screws 24 to the base 10.

The arms 21 are provided with right-angled projections 25, and to said projections are attached springs 26, at one end thereof, the other end of said springs being fastened to the base 10 by screws 27. The springs 26 26 act to draw the slide 15 toward the right, Figs. 2 and 3. Said slide is drawn toward the left by a segmental gear 28, which meshes into a rack 29, formed upon said slide, and is pivoted at 30 to a bracket 31, fast to the base 10. The segmental gear 28 is provided with a projecting arm 32, integral therewith, said gear and arm forming together a segmental gear-lever, the arm 32 being connected by a link 33 to a treadle 34, pivoted at 35 to a bracket 36, fast to the under side of the platform 7. The treadle 34 is pushed downwardly by a pin 37, which is depressed by the motorman whenever it is desired to distribute sand upon the tracks. The slide 15 is also moved toward the right, Figs. 2 and 3, by an arm 38, pivoted at 30 to the bracket 31 and connected to the slide 15 by a pin 39, which is fast to the arm 38 and projects through a slot 40, formed in an ear 41, integral with the slide 15. The arm 38 is provided with a lug 42, which projects into a recess 43, provided in a lug 44, integral with the segmental lever-arm 32.

The sand contained in the receptacle 8 is agitated and thoroughly stirred by means of an agitator 45, consisting of a rigid arm fast to the top of the slide 15 and projecting upwardly therefrom through the aperture 12 into the interior of the receptacle 8.

The general operation of the device hereinbefore specifically described is as follows: Assuming the receptacle 8 to be filled with sand above the conical bottom 11 and the parts to be in the position indicated in Fig. 3, if the



motorman desires to distribute sand upon the rails he presses his foot upon the pin 37, depressing the treadle 34 at the left-hand end thereof and raising the same at the right-hand end thereof. At the same time, through the link 5 33, the segmental gear-lever 32 and segmental gear 28, together with the arm 38, are rocked upon the pivot 30, moving the slide 15 toward the left from the position indicated in 10 Fig. 3 to that shown in Fig. 2. Upon releasing the pin 37 the springs 26 will draw the slide 15 toward the right from the position shown in Fig. 2 to that shown in Fig. 3. It will thus be seen that the sand in the interior 15 of the receptacle 8 will be stirred up by the agitator 45 when the slide 15 is moved, as hereinbefore set forth, from the position indicated in Fig. 3 to that shown in Fig. 2, the hole 16 will be brought beneath the aperture 20 12 and in line with the hole 19 and interior of the chute 17, so that the sand will pass downwardly from the interior of the receptacle 8 into the chute 17 and will be conducted by said chute to a point above the rail and in 25 front of the wheels 46 of the truck 6, as shown in Fig. 1.

Having thus described my invention, what I claim, and desire by Letters Patent to secure, is—

30 1. In a sand-distributing machine, a receptacle for sand provided with an aperture in the bottom thereof, a slide located beneath said aperture and having a hole extending there- 35 through, a chute beneath said slide, a rack fast to said slide, a gear meshing into said rack, and mechanism to impart a rocking motion to said gear.

40 2. In a sand-distributing machine, a receptacle for sand provided with an aperture in the bottom thereof, a slide located beneath said aperture and having a hole extending there- through, a chute beneath said slide, a rack 45 fast to said slide, a segmental gear-lever meshing into said rack, a pivotally-supported arm

operatively connected to said slide and to said 45 lever, and mechanism to rock said lever.

3. In a sand-distributing machine, a recep- 50 tacle for sand provided with an aperture in the bottom thereof, a slide located beneath said aperture and having a hole extending there- through, a chute beneath said slide, a rack 55 fast to said slide, a gear meshing into said rack, and a treadle connected to said gear and adapted to impart a rocking motion to said gear.

4. In a sand-distributing machine, a recep- 60 tacle for sand having a conical bottom with an aperture therein, a base to which said recep- tacle is fastened, a slide located beneath said aperture and adapted to slide in ways upon 65 said base, said slide consisting of a central body and two arms fast thereto upon opposite sides, respectively, of said central body, springs fast to said arms and base at opposite 70 ends thereof, respectively, and mechanism to impart a longitudinal movement to said slide.

5. In a sand-distributing machine, a recep- 75 tacle for sand having a conical bottom with an aperture therein, a base to which said recep- tacle is fastened, a slide located beneath said aperture and adapted to slide in ways upon 80 said base, said slide consisting of a central body and two arms fast thereto upon opposite sides, respectively, of said central body, springs fast to said arms and base at opposite ends thereof, respectively, mechanism to im- part a longitudinal movement to said slide, and an agitator fast to said central body and projecting therefrom through said aperture into said receptacle.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit- nesses.

GIUSEPPE GIOIOSA.

Witnesses:

CHARLES S. GOODING,  
ANNIE J. DAILEY.