No. 803,935. PATENTED NOV. 7, 1905.

H. STOKES.

TRACK SANDING DEVICE.

APPLICATION FILED AUG. 22, 1905.

Fig. 1

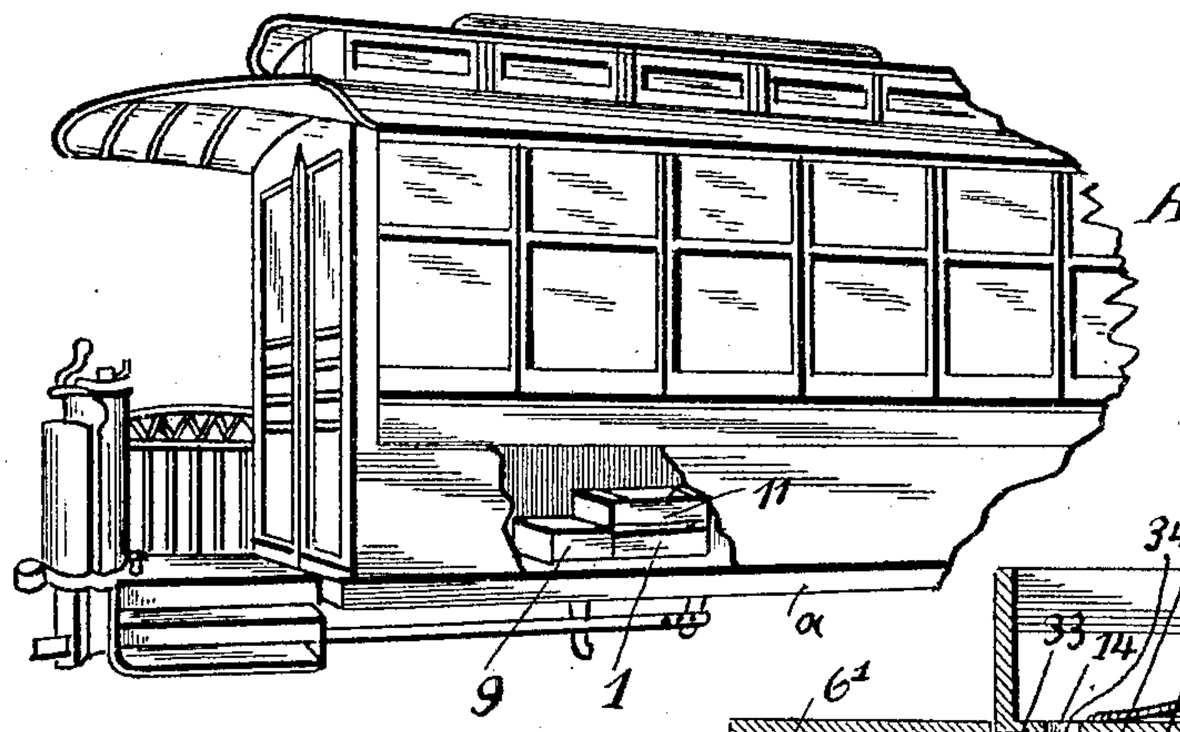


Fig. 2.

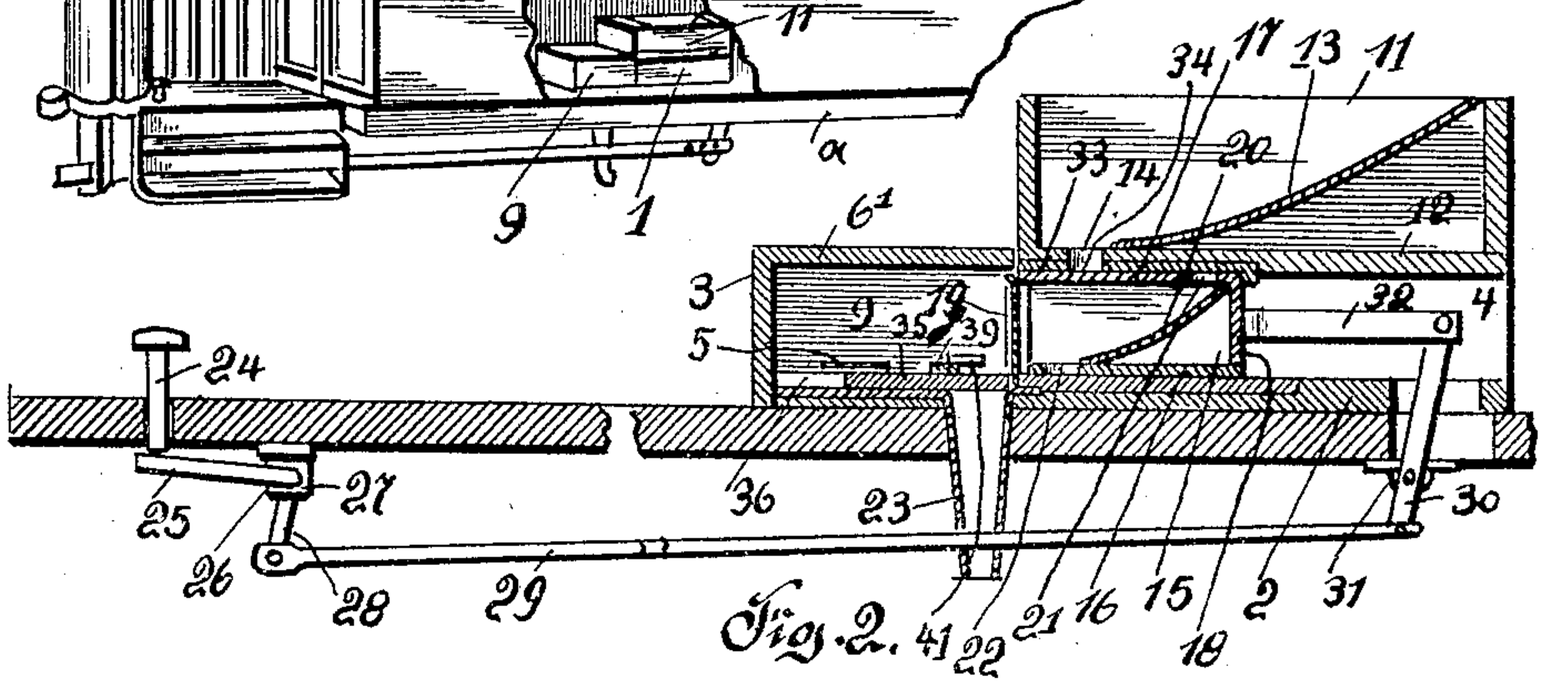
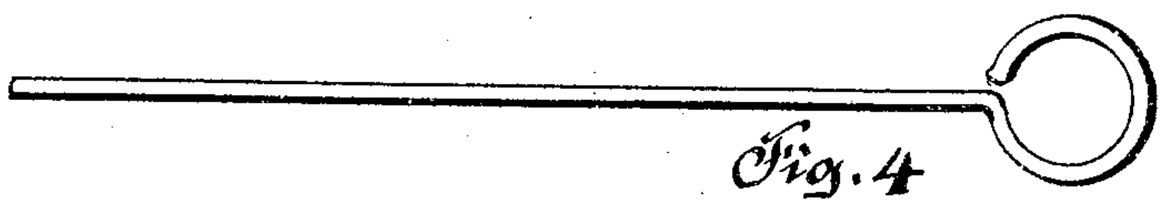


Fig. 4



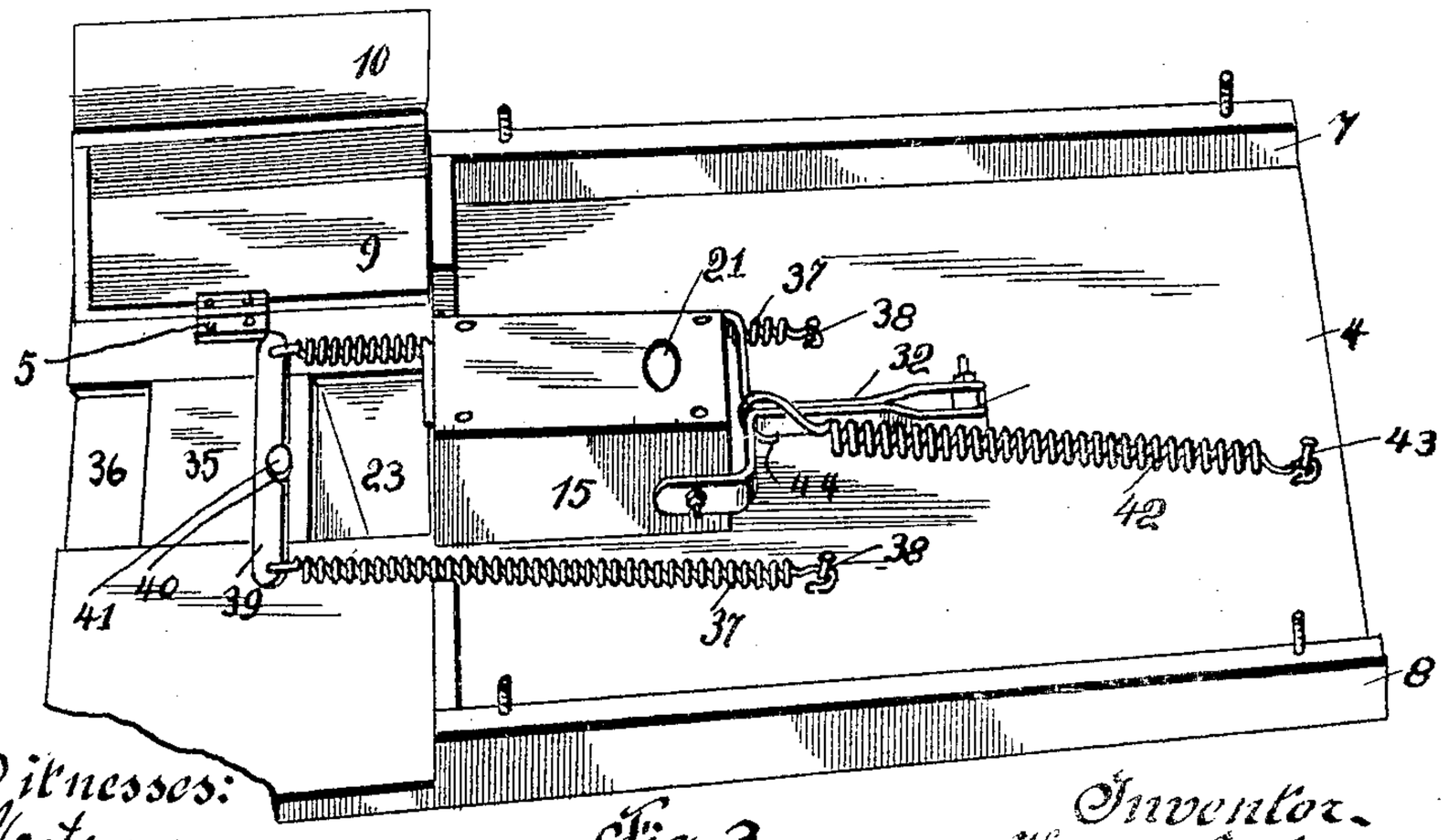


Fig. 3

Witnesses:
C. Mortenson.
R. F. Butler.

Inventor.
Homer Stokes.

By A. C. Evert & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

HOMER STOKES, OF WEST BRIDGEWATER, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOHN L. WEBB, OF WEST BRIDGEWATER, PENNSYLVANIA.

TRACK-SANDING DEVICE.

No. 803,935. Specification of Letters Patent. Patented Nov. 7, 1905.

Application filed August 22, 1905. Serial No. 275,321.

To all whom it may concern:

Be it known that I, HOMER STOKES, a citizen of the United States of America, residing at West Bridgewater, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Track-Sanding Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in track-sanding devices, and contemplates a structure which shall combine with simplicity and effectiveness of a sanding mechanism ready accessibility thereto at all times for the purpose of cleaning various parts without the removal of any elements.

The greatest fault with track-sanding devices is that when the various delivery chutes and spouts become clogged, which frequently happens, it is necessary to take the mechanism apart before access can be had thereto for cleaning purposes. Should any one of these spouts become clogged on the road, the car has to finish its runs for the day with the sanding device in imperfect condition, as too much delay is occasioned to permit of cleaning the same upon the road owing to the time consumed in removing and replacing the various parts, and the car has to be taken to the barn before the device can be cleaned or repaired.

My invention primarily aims to overcome this objection, and in effecting this advantage the particular devices employed are instantaneously-detachable sliding gates or valves which normally close the delivery-opening in the sanding-receptacle when the latter is in its inoperative position and which may be instantly removed from their seats to afford access to the delivery-spouts and which may be as quickly replaced in initial position.

The detailed construction will appear as the description proceeds, reference being had therein to the accompanying drawings, forming a part of this specification, like characters designating like parts throughout the several views, in which—

Figure 1 is a perspective elevation of the car, the side thereof being broken away to show the mechanism as arranged (arbitrarily, of course) between the seat and the floor. Fig. 2 is a longitudinal central section of the sand-receptacles and operating mechanism therefor. Fig. 3 is a perspective view of a movable sand-receptacle which coacts with a superposed stationary receptacle, (not shown in this view,) and Fig. 4 is an elevation of a tool or rammer that is employed in cleaning the delivery-spouts.

In Fig. 1 I have shown a car A, having a sanding device mounted upon its floor *a*, although this is but an arbitrary position. The sanding device embodies a stationary housing 1, provided with a floor 2. The housing is made in two sections 3 4, the section 3 being hinged on one side, as at 5, to the floor 2. The stationary section 4 is formed with side walls 7 8 and an open top and ends. The section 3 is formed with side walls 9 10, an end wall 6, as before intimated, and a top 6′, the other end thereof being open and in registry with the open end of the section 4. Mounted on the top of section 4 is a stationary sand-receptacle 11, which comprises side and end walls and a bottom 12 projecting slightly beyond each of the side walls, whereby it is bolted to the upper edges of the side walls of the section 4. The receptacle 11 is provided with a rigid inclined baffle 13, terminating a short distance from the forward end thereof, and adjacent the termination of the baffle 13 is an opening 14. Mounted within the section 4 and adapted to have a forward reciprocatory motion imparted thereto through suitable mechanism is a second sand-receptacle 15, which is formed with a bottom 16, side walls and a top 17, and an end wall 18. The other end thereof is open, but is normally closed by a sliding panel or valve 19. The receptacle 15 is provided with an inclined rigid baffle 20, and in the upper wall thereof, adjacent the rear end of this baffle, said receptacle is formed with an opening 21, and in the floor thereof, adjacent the forward end of the baffle, is an opening 22. The opening 21 is adapted to register with the opening 14 when the receptacle 15 is moved forward, and the opening 22 is adapted to register with the mouth of the delivery-spout 23. The receptacle 15 is moved until the openings in the top and bottom thereof shall come into alinement with the adjacent openings in the floor of the sand-receptacle and at the mouth of the spout by means of mechanism embodying the following elements, disposed beneath the floor of the car: A plunger 24 extends through the opening in the floor *a* and is supported by the upper inclined leg 25 of a bell-crank 26, journaled in bearings 27, secured to the floor *a*. To the end of the lower leg 28 of said bell-

crank is loosely mounted one end of a rod 29, which has pivotal connection at its other end with the lower end of a link 30, which is journaled off center in bearings secured to the floor of the car at 31. The upper end of the link 30 has pivotal connection with the end of a yoke 32, which embraces the rear portion of the movable receptacle 15, being secured to the sides thereof. The receptacle 15 is guided in its reciprocating movement by virtue of a recessed metallic plate 33, which is mounted upon the under side of the floor 12 of the sand-receptacle 11. The plate 33 is provided with an opening 34, that is constantly in registry with the opening 14 of said receptacle 11. For the purpose of closing the delivery-spout 23 when the receptacle 15 is in its inoperative position—that is, with the various openings therein out of registry with the openings in the receptacle 11—I have provided a slide 35, which is guided in a recessed passage-way 36, formed in the floor of the section 3. The slide 35 is maintained in a normal position, closing the mouth of the spout 23 by virtue of retractile springs 37, located on each side of the receptacle 15 and having their rear ends secured to pins, as at 38, and having their forward ends secured to a transverse bar 39, which is provided with a central arc-shaped recess 40, engaging a centrally-located pin 41 on the rear end of the slide 35.

For the sake of preventing any vibrations of the operating mechanism and the reciprocating sand-receptacle I maintain the latter in a normal inoperative position by means of a retractile spring 42, which has its rear end secured to a pin 43 and its forward end secured by a hooked connection to the yoke 32, as at 44.

As shown in Fig. 3, the slide 35 is in a position in front of the spout 23, this being the position it would naturally assume when motion is imparted thereto by the sliding receptacle 15. Normally when the receptacle 15 is in its inoperative position, as shown in Fig. 3, the slide 35 would close the mouth of the spout 23; but I deem that it will add to the simplicity of description and illustration in showing this slide positioned in front of the mouth of the spout 23.

The operation is as follows: When it is desired to sand a track, the motorman depresses the plunger 24, thereby throwing rearwardly the leg 28 of the bell-crank 26 and imparting reciprocating motion to the rod 29 in the rearward direction, so as to throw forward the upper end of the link 30 and through the medium of the connecting-yoke 32 transmit forward reciprocating motion to the receptacle 15, the latter moving forward until the edge of the floor 16 thereof impinges beneath the head of the pin 41, carried by the slide, by which motion is imparted to the latter against the tension of the springs 37, whereby to open the mouth of the spout 23 and permit the opening 22 in the floor 16 to come into registry therewith. The receptacle 15 is returned to initial position by means of a retractile spring 42 and the slide 35 to initial position by means of the springs 38. Should the spout become clogged, it is only necessary to remove the transverse bar 39 from its position against the pin 41 and withdraw the slide 35, at which time ready access may be had to the spout 23. Again, should any of the delivery-openings in the floor 16 of the receptacle 15 or in the top thereof become clogged it is only necessary to remove the slidable panel 19 to obtain access thereto.

It is obvious that various minor changes may be made without departing from the scope of my invention as defined in the appended claims.

What I claim is—

1. A track-sanding device embodying a stationary housing formed with open ends and comprising side walls, a floor extending beyond said side walls, and a forward portion hinged to the floor beyond said side walls, said forward portion being formed with a top, side and front walls, and having one end thereof open to register with the adjacent end of the stationary portion of said housing, a stationary sand-box located upon said housing and connected thereto, said stationary sand-box being provided with an inclined baffle and with a delivery-opening at the termination of said baffle, a forward reciprocating sanding-box located in said housing beneath said stationary sand-box, and being provided with an inclined baffle and with openings adjacent the upper and lower end of said baffle, means for imparting reciprocating motion to said second sand-box, a delivery-spout projecting beneath the floor of said second sand-box, and a slidable spring-controlled valve for normally closing the mouth of said delivery-spout, and adapted to be moved therefrom by means of said second-named sand-box.

2. A track-sanding device embodying a housing, a stationary receptacle located thereabove, a movable receptacle located in said housing, said stationary and said movable receptacles being formed with openings adapted to be brought into registry upon movement of the latter, means for imparting reciprocating motion to said movable receptacle, means for returning said movable receptacle to the normal position, a delivery-spout, and a spring-controlled valve for closing the mouth of said spout, said valve being moved by said movable receptacle in its forward travel.

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

HOMER STOKES.

Witnesses:
JOHN S. POWERS,
J. L. WEBB.