No. 676,892. Patented June 25, 1901.

B. HENRIKSON.

TRACK SANDING DEVICE FOR LOCOMOTIVES.

(No Model.) (Application filed Feb. 11, 1901.)

Fig. 1.

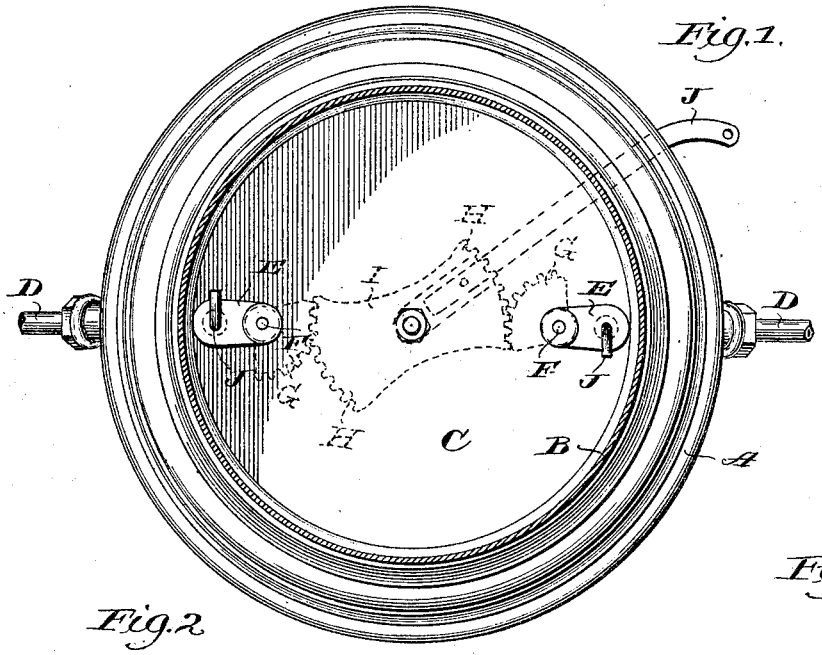

Fig. 2

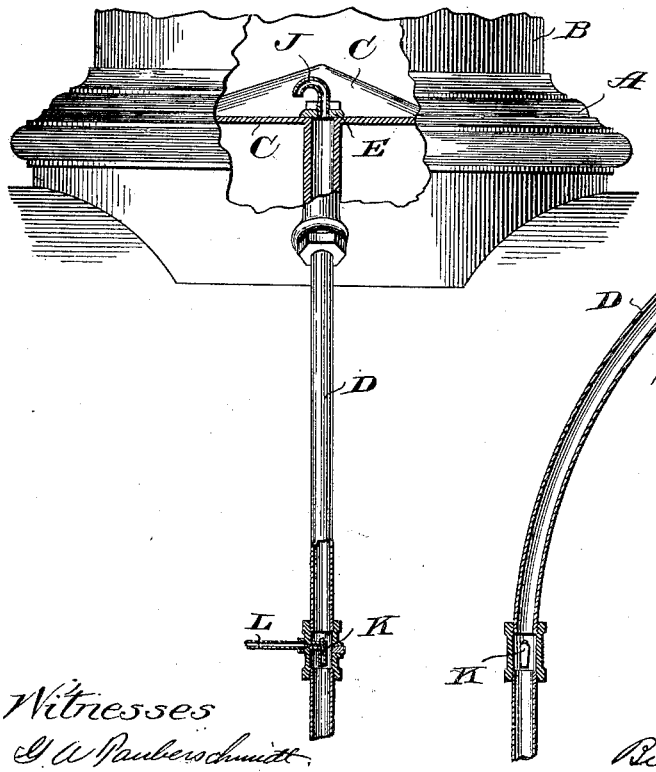

Fig. 3.

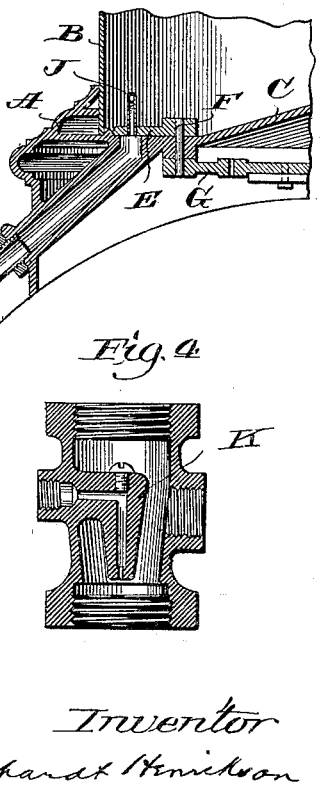

Fig. 4

Witnesses
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UNITED STATES PATENT OFFICE.

BERNHARDT HENRIKSON, OF AUSTIN, ILLINOIS.

TRACK-SANDING DEVICE FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 676,892, dated June 25, 1901.

Application filed February 11, 1901. Serial No. 46,811. (No model.)

To all whom it may concern:

Be it known that I, BERNHARDT HENRIKSON, a citizen of the United States, residing and having my post-office address at Austin, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Track-Sanding Devices for Locomotives, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification.

My invention has for its object the provision of novel and efficient means by which sand may be withdrawn from the sand-box of a locomotive and delivered through the sand-pipes to the rails by means of an ejecting apparatus operated by a jet of steam or air, while at the same time leaving the ordinary valves controlling the upper ends of the sand-pipes free to be operated by hand, as usual.

In the accompanying drawings, Figure 1 is a horizontal section of a locomotive sand-box, showing the interior and bottom thereof, with the hand operating devices for the valves indicated in dotted lines. Fig. 2 is a side elevation of a portion of the sand-box and sand-pipe, with parts broken away and in section. Fig. 3 is a detail in vertical cross-section, showing the lower part of the sand-box at one side and the upper portion of the sand-pipe and the valve controlling the latter. Fig. 4 is an enlarged detail of the coupling interposed in the sand-pipe and containing the ejector-nozzle.

The same letters of reference are used to indicate identical parts in the several views.

A represents the base of the sand-box, B its vertical cylindrical wall, and C its bottom, shown as rising to a central point, as usual.

D represents the sand-pipes, opening at their upper ends through the bottom of the sand-box and leading thence downward upon opposite sides of the boiler to the track-rails. The upper ends of these sand-pipes are normally closed by valves E, fast upon the upper ends of vertical spindles F, journaled in and projecting through the bottom C of the box and having secured upon their lower ends gear-toothed sectors G, meshing with like sectors H H, formed upon the opposite ends of a rocking plate or lever I, pivoted at its middle to a central support beneath the bottom of the sand-box and having fastened to it an arm J, whose outer end is connected to an operating-rod leading to the cab of the locomotive and by means of which the engineer may rock the gear-toothed plate I to open and close the valves E, all in the usual manner.

Under the construction shown in the drawings each of the hand-operated valves E carries a vertically-disposed siphon-shaped pipe J, the lower end of whose longer leg is secured in the valve in position to register and communicate with the sand-pipe when the valve is in closed position. Interposed in the sand-pipe itself, preferably at a point remote from the sand-box, is an ejecting-nozzle K, to which steam or air is admitted from the pipe L. Under this construction and arrangement of the parts when steam or air is admitted to the pipes L it will blow downward through the sand-pipes and exhaust the air in their upper ends and produce a suction through the same and through the siphon-pipes J, carried by the valves E, which will cause the sand in the bottom of the sand-box to be drawn upward through the siphon-pipes J J and thence downward through the sand-pipes and delivered to the rails. The siphon shape of the pipes J prevents any escape of sand from the sand-box when the valves E are in closed position, except when steam or air is admitted to the pipes L for the purpose of withdrawing it from the box and delivering it to the rails in the manner described. This provision enables the valves E to be so constructed as to tightly close the upper ends of the sand-pipes and leave them free to be operated by hand to fully open the upper ends of said pipes when desired.

Having thus fully described my invention, I claim—

In locomotive track-sanding devices, the combination with the sand-box and sand-pipes, of the hand-operated valves E controlling the upper ends of said pipes, the siphon-shaped pipes J secured in and carried by said valves, and the ejectors K interposed in the sand-pipes, substantially as and for the purpose described.

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Witnesses:

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