W. H. WILCOX.

SAND PIPE AND VALVE FOR LOCOMOTIVES OR CARS.

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1,164,562. Patented Dec. 14, 1915.

Fig. 1.

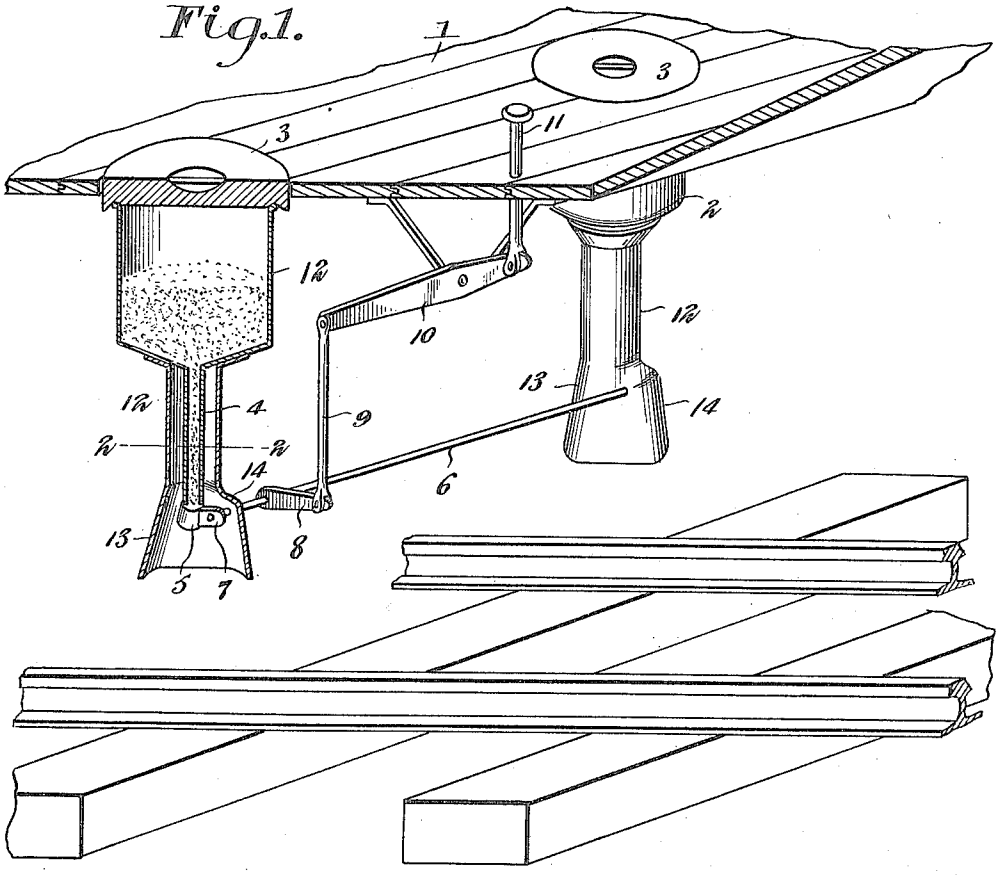
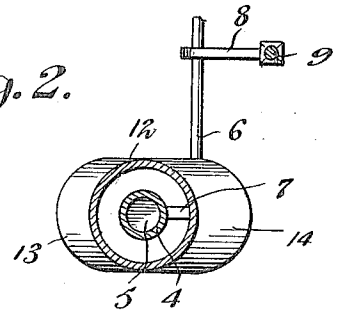


Fig. 2.



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SAND PIPE AND VALVE FOR LOCOMOTIVES OR CARS.

1,164,562. Specification of Letters Patent. Patented Dec. 14, 1915.

Application filed April 10, 1915. Serial No. 20,476.

To all whom it may concern:

Be it known that I, WILLIAM H. WILCOX, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Sand Pipes and Valves for Locomotives or Cars, of which the following is a specification.

This invention relates to improvements in sand valves and pipes for locomotives and cars, and its primary object is to provide a construction whereby the valve and pipe are shielded, to prevent rain or snow, from reaching the valve and sand and wetting the sand, with its attendant objections.

A further object of the invention is to provide a novel construction and arrangement of shield for guarding the sand pipe and valve, whereby the same will be protected in a reliable and efficient manner.

The invention consists of the features of construction, combination and arrangement of parts herein fully described and claimed, reference being had to the accompanying drawing in which:—

Figure 1 is a sectional perspective view showing the application of the invention to sanding devices at opposite sides of a car. Fig. 2 is a detail section on the line 2—2 of Fig. 1.

Referring to the drawing, 1 designates a portion of a body of a locomotive or car, supporting a sand box or hopper 2, provided with the usual removable cover 3. Depending from the lower end of each sand box or reservoir is a sand discharge pipe 4, normally closed at its lower end by a valve 5, whereby the discharge of sand from the box to the track rail is controlled. In the present instance I have shown sanding devices of the character described arranged at opposite sides of the locomotive or car for sanding both rails of the track, and it will be observed that the valves 5 thereof are arranged to be operated from a common rock shaft 6, the valves being connected by crank arms 7 with the ends of the shaft, which ends of the shaft are mounted as hereinafter described. Any suitable means for rocking the shaft 6 may be employed, but in the present instance the shaft is shown as provided with a crank arm 8 connected by a link 9 with a lever 10, arranged to be operated by a depressible foot rod 11.

Arranged to inclose each pipe is a tubular shield 12 secured at its upper end to the base of the box or hopper 2 so as to surround the pipe uniformly for the greater portion of the length of the pipe. At a point just above the lower or discharge end of the pipe, the tube is enlarged to provide a flaring guard or hood 13 which incloses the valve and extends downward below the same, so that the pipe will be protected against rain water or steam condensation, as well as from the water from melting ice and snow, while the guard or shield 13 will effectually prevent ice, snow or water from reaching the valve or lower end of the pipe, all drippings and drainage, as well as all particles of snow and ice which may be thrown toward the pipe being shed by the shield and hood, as will be readily understood. Each hood is provided with an offset portion 14, to receive the crank arm 7 and the adjacent end of the shaft 6, which end of the shaft 6 is journaled in the side walls of the offset portion of the hood. By this construction provision is made for mounting the shaft in a simple and effective manner, and for accommodating and permitting of free and easy motion of the crank arm 7 and the valve carried thereby. Thus it will be seen that the valve can not, under all ordinary conditions, become moistened and freeze to the pipe, and the sand in the lower end of the pipe will also be kept free and clear of moisture, by which well known objections to sanding devices in common use are avoided.

I claim:—

1. In a sanding device, a reservoir, a discharge pipe hanging pendent therefrom, a guard or shield having a tubular body portion surrounding the pipe and terminating in a flaring hood inclosing and projecting below the discharge end of the pipe, a rock shaft journaled upon the hood, a valve mounted upon said shaft within the hood and controlling the discharge end of the pipe, and means for rocking said shaft.

2. In a sanding device, a reservoir, a discharge pipe hanging pendent therefrom, a valve controlling the discharge end of said pipe, a guard or shield having a tubular body portion surrounding the pipe and terminating in a flaring hood inclosing the discharge end of the pipe and the valve and projecting below the latter, and a pivotal support for the valve mounted upon said hood.

3. In a sanding device, a reservoir, a discharge pipe hanging pendent therefrom, and

a tubular shield supported by the reservoir and surrounding the pipe, said shield having a flaring lower end forming a hood surrounding the lower end of the pipe and projecting below the same, said hood being provided with an offset portion and a crank shaft journaled in said offset portion, a crank connected with said shaft, and a valve carried by said crank and controlling the outlet end of the sand pipe.

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

WILLIAM H. WILCOX.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."