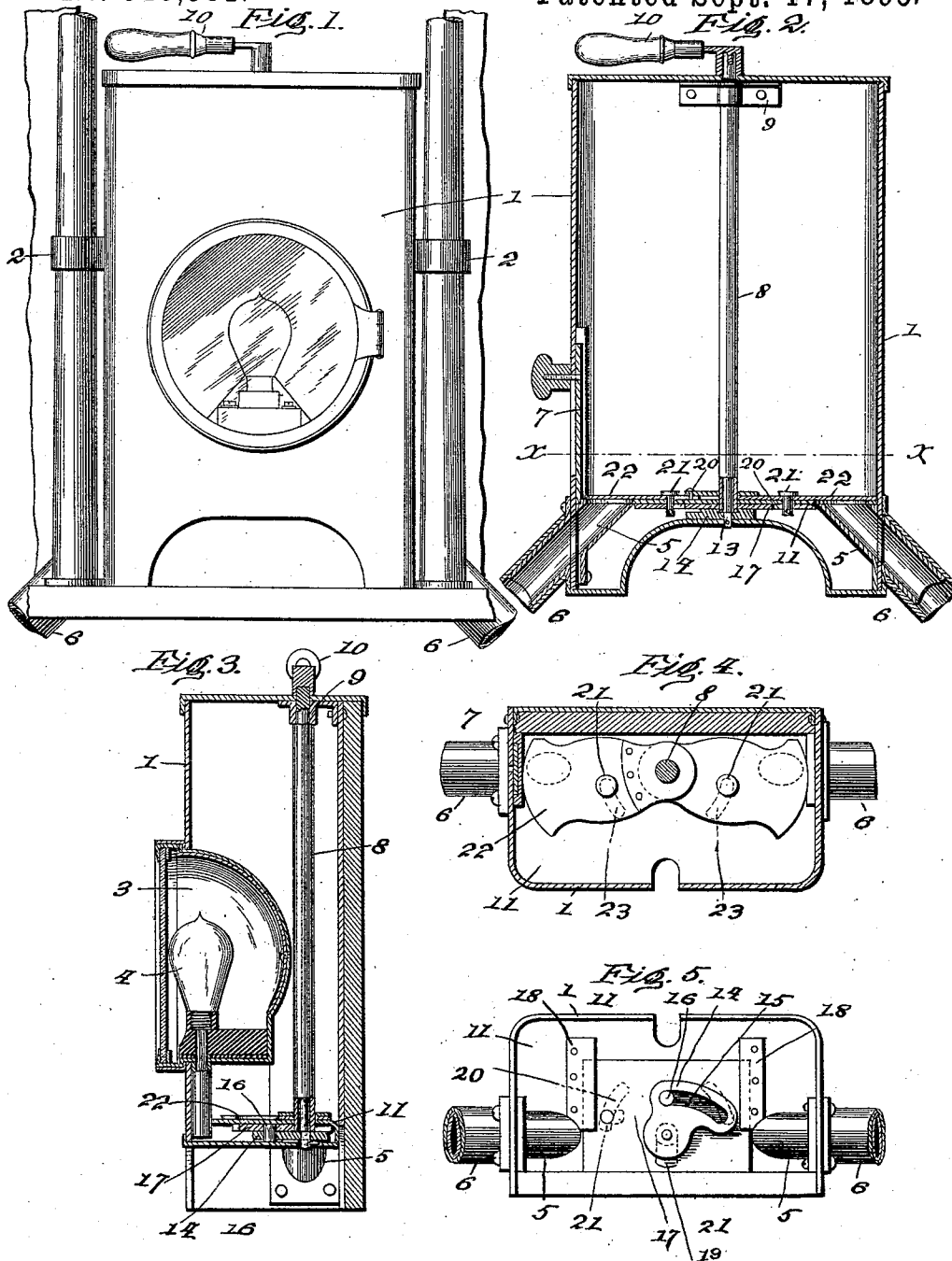


(No Model.)

I. H. DAVIS.
COMBINED HEADLIGHT AND SAND BOX.

No. 546,581.

Patented Sept. 17, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

ISAAC H. DAVIS, OF SOUTH BUTTE, ASSIGNOR OF ONE-HALF TO ADOLPH PINCUS, OF BUTTE, MONTANA.

COMBINED HEADLIGHT AND SAND-BOX.

SPECIFICATION forming part of Letters Patent No. 546,581, dated September 17, 1895.

Application filed January 30, 1895. Serial No. 536,649. (No model.)

To all whom it may concern:

Be it known that I, ISAAC H. DAVIS, a citizen of the United States, residing at South Butte, in the county of Silver Bow and State of Montana, have invented certain new and useful Improvements in a Combined Headlight and Sand-Box; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a combined headlight and sand-box attachment for general street-cars, the same being adapted to be applied to general street-cars of any construction for the purpose of furnishing a headlight therefor; and, further, to deliver sand to the rails to be acted upon by the wheels in a well-known manner to prevent the said wheels from slipping.

The invention consists of a casing, on the front side of which is a depression in which is located an electric or other light, with a suitable door having a reflector therein. The casing itself is provided with a suitable top and two outlet ports, one on each side thereof, one of which is covered by a suitable hand-slide valve, and further provided with a double valve adapted to open or close both outlet-ports at the same time. This valve consists of a plate having a cam-slot therein engaging a pin upon a second plate mounted in suitable guides and adapted to move laterally across the bottom of the casing, with a pair of elongated slots therein which engage pins upon the valves themselves, which are pivoted in the bottom of the casing, the said pins moving in curved slots, whereby upon turning the plate with the cam-slot therein by means of a rod projecting upwardly therefrom the two slides are adapted to move in unison.

It also consists in other details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings, forming a part of this specification, Figure 1 represents a front elevation of the device shown applied to a locomotive. Fig. 2 is a vertical central section through the same. Fig. 3 is a similar section at right angles to Fig. 2. Fig. 4 is a horizontal section

taken on the line just above the false bottom thereof; and Fig. 5 is a bottom plan view, certain of the operating parts being shown in dotted lines.

Like reference-numerals indicate like parts in the various views.

By reference to the drawings it will be seen that 1 represents the casing, provided with suitable brackets 2 on the sides thereof, by means of which it can be attached to the front of general street-cars. The front face of the casing 1 is formed with a hemispherical depression 3, in the center of which I locate my headlight 4, and in front of said headlight is a hinged door carrying a lens for protecting said headlight and permitting the rays of light to be transmitted therethrough. Leading from each side of the casing 1 are two spouts 5 5, through which the sand from the inside of the casing is thrown upon each rail. One of the outlet-openings 6, with which said spouts 5 connect, is provided with a hand-slide valve 7, by means of which the flow of sand may be cut off from one spout 5. I also provide means whereby both of the outlet-openings 6 may be opened or closed simultaneously, the same being operated by means of a vertical rod 8, having its upper end suitably supported in a bracket 9 on the inside of the casing 1, and having connected thereto a hand-operating lever 10, as clearly shown. The lower end of said rod 8 has bearings in the false bottom 11 of the casing, and is formed at its lower end with a rectangular portion 13, upon which is rigidly secured an operating-plate 14, having a cam-slot 15 therein. Engaging this cam-slot 15 is a pin 16 on the sliding plate 17, moving in suitable guides 18 on the under side of said false bottom. The said plate 17 is provided with an elongated slot 19 to permit the movement thereof past the lower end of the rod 8, and also has two elongated slots 20 20 at its sides, through which project two pins 21 21, secured to the under side of the valve-plates 22 22, pivoted at their inner ends and moving on top of the false bottom 11. These pins also move in converging curved slots 23 23 in said false bottom 11. By this construction it will be seen that by turning the handle 10 of the rod 8 the said rod will be turned in one direction

or the other, turning the plate 14, and through the cam-slot 15 therein and the pin 16 the sliding plate 17 is moved either backward or forward. The movement of this plate in one direction or the other causes the pins 21 21 to move in the slots 23 23, and thereby cause the opening or closing of the valve-plates 22. The engineer can, therefore, operate the valves leading from the sand-box by means of the handle 10 in a convenient manner.

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

1. The combination with a street car of ordinary construction, of a sand box secured to the front part thereof, having an opening in its top for the admission of sand to the interior of said box and means for discharging said sand, the front face of said sand box having a depression therein, a head light secured in said depression, and a door provided with a suitable reflector hinged to the front of said depression, substantially as described.

2. The combination with general street cars,

of a sand box adapted to be secured thereto, having outlet openings in the bottom thereof and spouts leading therefrom, valves for opening and closing said outlets, and means for operating the same, consisting of a plate having a cam slot therein, a vertical rod leading upwardly therefrom and provided with an operating handle, a sliding plate having a pin engaging said cam slot, valve plates pivotally mounted at one end and having pins projecting therefrom engaging converging curved slots in the bottom of said casing, and slots in said sliding plate, whereby upon turning said handle said valves are caused to be opened or closed in unison, substantially as and for the purpose described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ISAAC H. DAVIS.

Witnesses:

JOSIAH H. TREVISE,
CHAS. D. FRENCH.