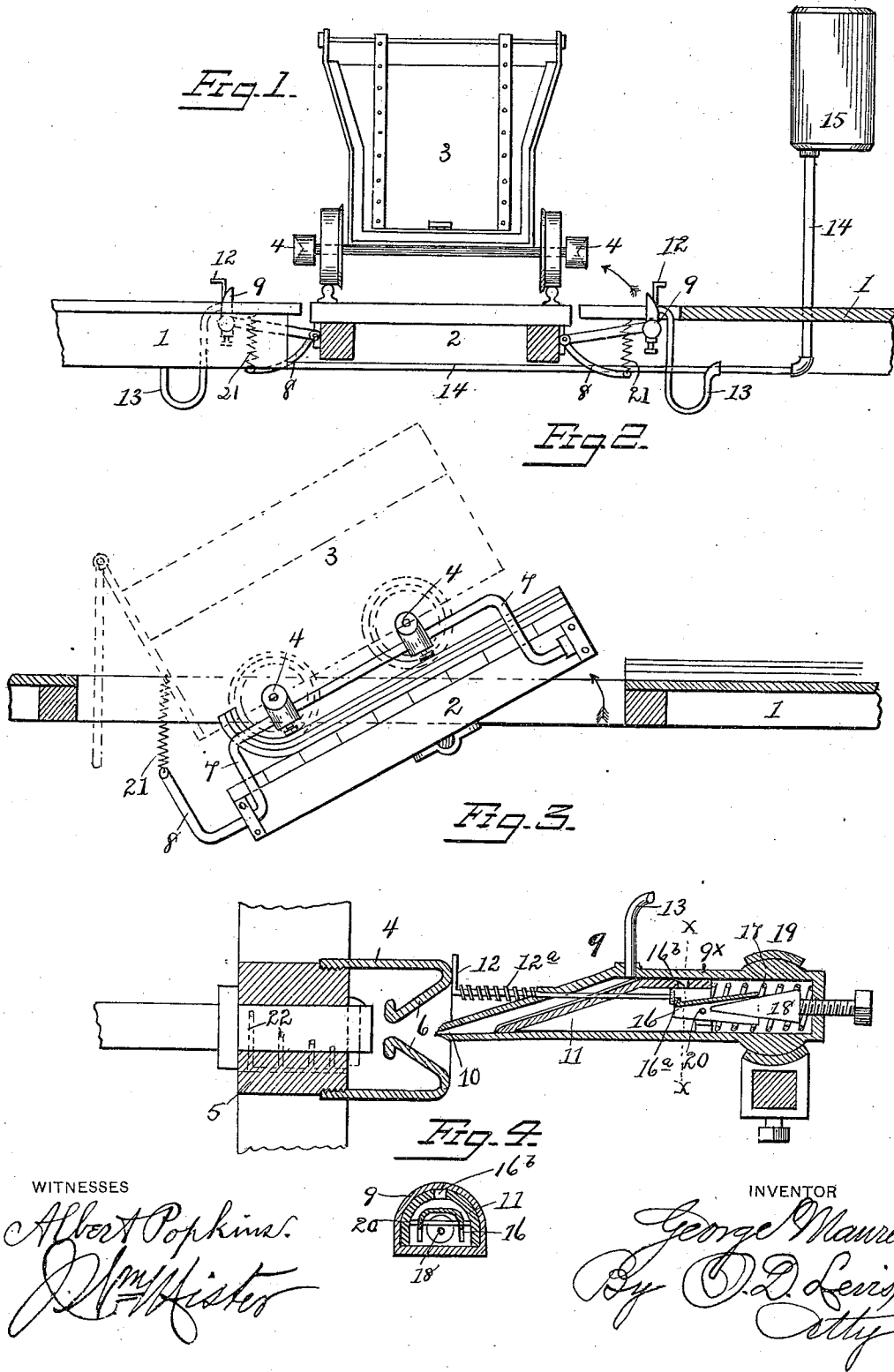


(No Model.)

G. MAURER.
LUBRICATOR FOR COAL CARS.

No. 553,684.

Patented Jan. 28, 1896.



UNITED STATES PATENT OFFICE.

GEORGE MAURER, OF HILDALE, PENNSYLVANIA.

LUBRICATOR FOR COAL-CARS.

SPECIFICATION forming part of Letters Patent No. 553,684, dated January 28, 1896.

Application filed May 31, 1895. Serial No. 551,179. (No model.)

To all whom it may concern:

Be it known that I, GEORGE MAURER, a citizen of the United States, residing at Hildale, Union township, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Automatic Lubricators for Coal-Cars; 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved automatic lubricator for coal-cars; and it consists in certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is an end elevation of a coal-car and portion of the tippie, together with my improved device, for automatically lubricating the axles of the same while in the act of dumping or discharging its contents. Fig. 2 is a side elevation, partly in section, of the same. Fig. 3 is an enlarged side sectional elevation of the self-operating valve, together with a sectional view of the hub of one of the wheels and its cover. Fig. 4 is a cross-section taken on the line *xx* of Fig. 3.

To put my invention into practice with a coal-tippie 1 of ordinary construction, and having a pivoted or journaled carriage 2 for the purpose of dumping the cars 3, I attach to each side of the said carriage a bent bar 7, having a lever 8 at the front end, and the said bar suitably journaled in bearings and adapted to be moved toward and away from the car 3. The lever 8 forming a part of this bent bar is attached by means of a spring 21 to the under side of the tippie 1 in a manner that when the carriage 2 is tipped for the purpose of dumping the car 3 the said bent arms or bars 7 will move toward the car 3 and recover themselves when the carriage is again brought to a horizontal position. Attached to these bars 7 are automatic valves 9 for the purpose of regulating and controlling the flow of oil from a tank 15. These valves consist in a shell 9^a having a nozzle 10 and ball-and-socket joint 19 attached to the bar 7.

Arranged within the shell 9^a is a valve 11,

adapted to normally cover the oil-feed passage communicating with the oil-pipe 13, being thus held or acted upon by a spring 17, pressing against the rear end of said valve, and hung, as at 20, near its forward end, within the valve 11 near the rear end thereof, is a hood-like stop 16, having at its extreme upper end a vertical projection or lug 16^a normally engaging a notch or aperture 16^b in the upper part of the valve 11. A cone-ended adjusting-screw 18 is held in the rear end of the shell 9^a and adapted to engage the flaring portion of the stop 16 and by its adjustment provide for the release of the valve at any desired amount of movement of the valve, as will be more fully appreciated farther on. A rod 12 is normally held in engagement with the forward end of the stop 16, and, passing out through apertures in the valve 11 and shell 9^a, is encircled or compassed, outside of said shell, by a spring 12^a to automatically return said rod to its original position when not under pressure or acted upon from without.

It will be understood that as the carriage 2 is tilted with the car the bars 7 will be carried with the oiler 10 upward, and by the engagement of the rod 12 with the cap 4 of the hub 5, forcing inward the valve 11, uncovering the oil-feeding port of the oil pipe or hose 13, the nozzle 10 will enter and pass the oil or lubricant into the opening 6 of the cap, and thus feed the oil or lubricant to the car-axle. This valve is connected by a flexible coupling 13 to a pipe 14 leading to the oil-tank 15. Connected to each of the hubs 5 of the wheels by means of screw-threads are caps or covers 4, having conical openings 6 at the front of each, in which the nozzles 10 of the valves enter to discharge the oil into the cap, and thereby lubricate the axles.

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

1. The combination, with the tilting carriage of a coal-tippie, of the bent bar pivoted to said carriage and adapted, as said carriage is tilted, to approach the carriage, an oil-feeding device carried by said bent, pivoted bar, and a valve actuating rod for said oil-feeding device, adapted to be engaged by the axle hub or cup of the car as said oil-feeding device approaches same, substantially as set forth.

2. The combination, with the tilting carriage of a coal-tipple, of the pivoted bent bar arranged on the carriage and having a crank-arm, a spring connecting said crank-arm to a fixture, an oil-feeding device carried by said pivoted bar, and a valve-actuating rod for said oil-feeding device, engaged by the hub or cap of the car-axle, substantially as set forth.

3. The combination, with the tilting carriage of a coal-tipple, of the pivoted bent bar arranged upon said carriage and adapted to move toward said carriage as the latter is tilted, an oil or lubricant feeding device carried by said bar, a valve normally covering the oil-feeding port or passage, a stop pivoted in said valve, a rod normally engaging one end of said stop and adapted to be engaged by the hub or cap of the car-axle, substantially as specified.

4. The combination, with the tilting car-

riage of a coal-tipple, of the bent bar pivoted upon said carriage and having a crank-arm, a spring connecting said crank arm to a fixture, an oil or lubricant feeding device, a spring-pressed valve normally covering the oil-feeding port or passage, a pivoted stop engaging an opening in said valve, an adjustable cone-ended screw engaging said latch or dog, the rod adapted to normally engage said stop and to be engaged by the car-axle hub or cap, and means for supplying oil or lubricant to said oil-feeding device, substantially as set forth.

In testimony that I claim the foregoing I hereunto affix my signature this 30th day of March, A. D. 1895.

GEORGE MAURER. [L. S.]

In presence of—

M. E. HARRISON,

JAS. J. MCAFEE.