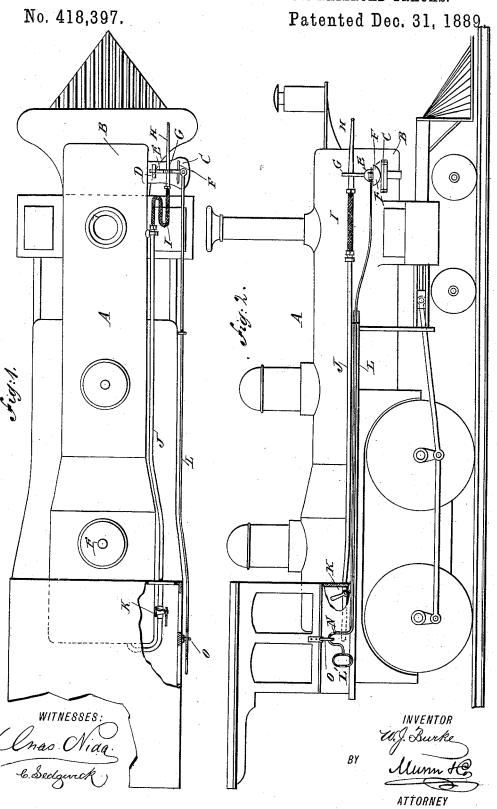
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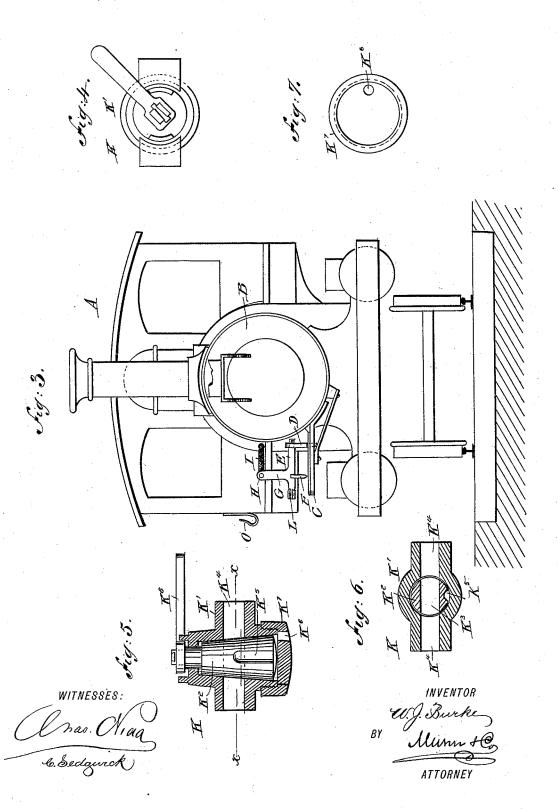


## W. J. BURKE.

DEVICE FOR DRIVING CATTLE FROM RAILROAD TRACKS.

No. 418,397.

Patented Dec. 31, 1889.



## UNITED STATES PATENT OFFICE.

WILLIAM J. BURKE, OF MISSOULA, MONTANA.

## DEVICE FOR DRIVING CATTLE FROM RAILROAD-TRACKS.

SPECIFICATION forming part of Letters Patent No. 418,397, dated December 31, 1889.

Application filed February 8, 1889. Serial No. 299,138. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM JOSEPH BURKE, of Missoula, in the county of Missoula and Territory of Montana, have invented a new and Improved Device for Driving Cattle from Railroad-Tracks, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved device under the control of the engineer on a locomotive and serving for driving cattle off the railroad-track.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement as applied, parts being in section. Fig. 2 is a side elevation of the same with parts broken out. Fig. 3 is an enlarged front view of the same. Fig. 4 is an enlarged side elevation of the valve. Fig. 5 is a sectional plan view of the same. Fig. 6 is a sectional side elevation of the same on the line x x of Fig. 5. Fig. 7

is a face view of the valve-cap.

The locometive A, of any approved construction, is provided on one side near the front end of the boiler B with a bracket C, carrying a post D, mounted to turn in the bracket C. In the upper end of the post D 35 is journaled one end of a horizontal bar E, supported near its other end by a semicircular disk F, resting with its periphery on the base C, so as to turn or roll on the latter. From the bar E extends upwardly an arm G, 40 in the upper end of which is secured the nozzle H, of any approved construction and pointing in front of the locomotive A. The rear end of the nozzle H is connected by the flexible tube I with the pipe J, extending rear-45 wardly on the boiler and leading into the interior of the latter in the cab of the locomotive. A valve K (shown in detail in Figs. 4, 5, 6, and 7) is located in the pipe J and is under the control of the engineer, so that when 50 the engineer opens the valve K water or steam under pressure from the boiler will pass into !

and through the pipe J to the tube I and nozzle H, which discharges the stream of water or steam onto the cattle standing on the railroad-track in front of the approaching loco- 55 motive. The valve K is provided with a valvebody K', in which is mounted to turn the conically-shaped plug  $K^2$ , provided with the usual aperture  $K^3$ , adapted to register with the inlet and outlet openings K4, connected 60 with the pipe J. On the periphery of the plug K<sup>2</sup> is formed a recess K<sup>5</sup>, adapted to register with an opening K6 in the cap K7, screwing on the valve-body K'. The recess K<sup>5</sup> is also adapted to register with the outlet-open- 65 ing K4 when the valve-plug K2 is turned off, so that air passes into the pipe J to drain it after it has been used. The outer end of the bar E is connected to the rod L, which extends rearwardly to the cab of the locomotive, 70 and is provided at this end with a bend N, adapted to be hooked on a hook O, secured to the outside of the cab. A handle L' is also formed on the rod L, and is under the control of the engineer, so that the latter can 75 move the rod L forward or backward, thus imparting a turning motion to the bar E, turning on the post D as fulcrumed. The horizontal direction of the nozzle H can thus be changed so that the engineer is able to di- 80 rect the stream of water or steam onto any part of the track. By raising or lowering the rod L the engineer can slightly turn the bar E, so that the disk F turns likewise on the bracket, and the nozzle H is adjusted ver- 85 tically, so as to direct the stream of water or steam higher or lower, as deemed necessary. If the engineer discovers cattle on the track in front of the locomotive, he opens the valve K to let a stream of water or steam pass out 90 the nozzle H, and he then adjusts the nozzle H horizontally or vertically, according to the position of the cattle, so as to throw the stream of water directly onto the cattle, which thus get frightened and run off the track.

Having thus described my invention, what I claim as new, and desire to secure by Let-

ters Patent, is-

1. The combination, with a locomotive-engine, of a universal joint at the forward end 100 thereof, a vertically and longitudinally movable rod leading from the cab thereto, a noz-

zle carried by the said joint and connected with the boiler, and a valve adapted to be operated by the engineer to admit steam or water to the nozzle, substantially as set forth.

5 2. The combination, with a locomotive-engine, of a universal joint mounted at the front end of the engine, a nozzle thereon, a pipe leading from the boiler within the cab into the rear end of the nozzle and having a flexible section, a valve in said pipe within the cab to be operated by the engineer, and a rod leading from the cab to the universal joint, whereby by moving the rod longitudinally the nozzle will be adjusted horizontally, and by raising or lowering it the nozzle will be adjusted vertically.

3. The combination, with a bracket held on the locomotive, of a post mounted to turn on the said bracket, a bar mounted to turn in the said post and carrying a semicircular disk

resting on the said bracket, a nozzle mounted on the said bar, and a rod connected with the said bar and under the control of the engineer, substantially as shown and described.

neer, substantially as shown and described.

4. The combination, with a bracket, of a 25 post mounted to turn on the said bracket, a bar mounted to turn in the said post and carrying a semicircular disk resting on the said bracket, a nozzle mounted on the said bar, a rod connected with the said bar, a pipe connected with the said bar, a pipe connected with the said nozzle and leading to the interior of the locomotive-boiler, and a valve held in the said pipe and under the control of the engineer, substantially as shown and described.

WILLIAM J. BURKE.

Witnesses: J. D. Morris, W. P. Bell.