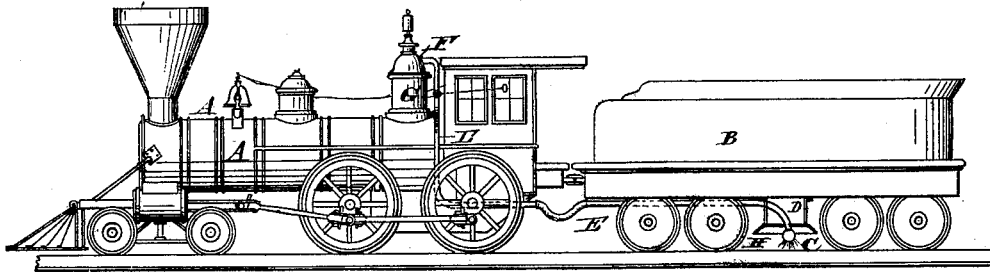


L. B. SIMPSON.  
 Apparatus for Destroying Vegetation on Railroads.

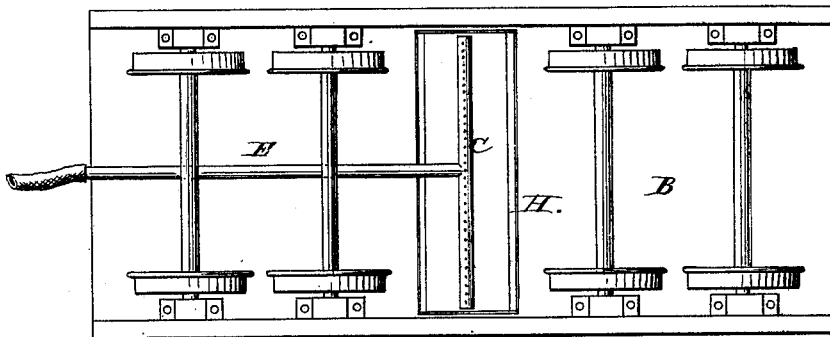
No. 206,628.

Patented July 30, 1878.

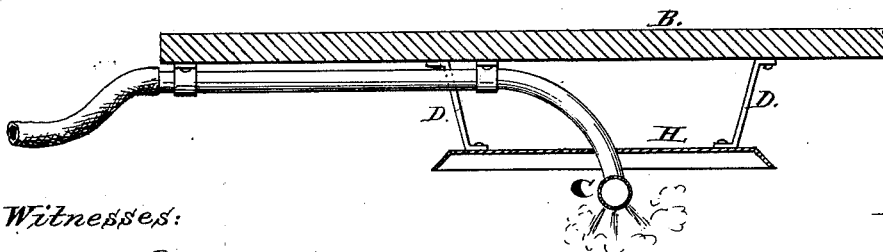
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses:*

*J. A. Rutherford*  
*W. Wright*

*Inventor:*

*Louisa B. Simpson.*

*by James L. Norris.*  
*Attorney.*

# UNITED STATES PATENT OFFICE.

LOUISA B. SIMPSON, OF LAWRENCE, KANSAS.

IMPROVEMENT IN APPARATUS FOR DESTROYING VEGETATION ON RAILROADS.

Specification forming part of Letters Patent No. **206,628**, dated July 30, 1878; application filed June 24, 1878.

*To all whom it may concern:*

Be it known that I, LOUISA B. SIMPSON, of Lawrence, in the county of Douglas and State of Kansas, have invented certain new and useful Improvements in Method and Apparatus for Destroying Vegetation on the Beds of Railroads, of which the following is a specification:

This invention has for its object to provide for conveniently and effectually destroying and checking the growth of weeds and other vegetation on and near the beds of railroads by means of jets of steam from the boiler of the locomotive. This is effected by means of a pipe or series of perforated or slotted pipes extending preferably transversely under the tender, and connected, by means of a suitable pipe or pipes, with the boiler of the locomotive, the said perforated or slotted pipe or pipes being provided with a metallic plate or deflector above, by means of which the steam may be held longer in contact with the vegetation, as more fully hereinafter set forth.

In the drawing, Figure 1 represents a side elevation of a locomotive and tender, showing my improvement. Fig. 2 represents a bottom view of the tender, showing the perforated or slotted pipe and the deflector above the same. Fig. 3 represents a longitudinal section of the lower part of the tender, showing the slotted pipe and the deflector above the same.

The letter A represents the locomotive, and B the tender, which are both of the ordinary construction. C represents a pipe, extending transversely under the tender, and supported therefrom by the hangers D, or by any other suitable means. Said pipe is provided with a series of perforations or slots on its under side, and is located as near to the bed of the road as practicable, in order to get the full effect of the steam upon the vegetation. Said pipe is extended at each side of the tender a sufficient distance for the steam to reach the weeds as far each side of the track as may be desired. Above said pipe is located a metallic plate or deflector, H, extending the entire length of the pipe, and of sufficient width to deflect and hold the steam in contact with the road-bed, and prevent its escape in an upward direc-

tion. Said plate may be flat, as shown in Fig. 1, or it may be curved, as shown in Fig. 2, and is supported by the hangers which support the pipe, or by any other convenient means.

The letter E represents a pipe or pipes, extending from the perforated or slotted pipe or pipes to the steam-dome F of the boiler, said pipe or pipes E being provided with suitable means, such as a stop-cock, G, under control of the engineer, by means of which the steam may be let into the perforated pipe when desired, and thence allowed to escape upon the road-bed, both between and outside of the rails, and the vegetation thereof, as may be desired.

It is evident that more than one of the perforated or slotted pipes may be employed, if found convenient or necessary, the same being parallel to each other, and as far apart as may be found best; and where it is impracticable to get sufficient steam to supply the perforated or slotted pipe or pipes throughout their entire length at one time, said pipes may be divided, as shown in Fig. 2, and the steam let into one side only at one time, so as to reach only one-half of the track or road-bed, the other side being subjected to the action of the steam on the return trip of the locomotive; or two independent pipes or sections, one at each side of the tender, extending from the center of the same, may be employed, using only one section at a time, as before mentioned.

The operation of my invention is as follows: As soon as the usual pressure of steam is secured in the boiler, the locomotive to which the device is attached is run to the portion of the road-bed to be cleared. The steam is then discharged on the vegetation through the perforated or slotted pipe or pipes, the locomotive being run slowly over the track during the operation, so as to allow the steam full time to act. By this means the weeds and other vegetation on the road-bed are killed, and the growth of the same checked, at a great saving of time and expense, and, moreover, the road-bed is left in an undisturbed condition, and is not loosened and thereby rendered more subject to washing during heavy

rains, as happens when the ordinary method of destroying vegetation with shovels is resorted to.

What I claim is—

- 1. In combination with the tender of a locomotive, one or more perforated or slotted pipes extending transversely under the same and connected with the boiler of a locomotive, substantially as specified.
- 2. In combination with the perforated or

slotted pipe or pipes, the deflector located above the same, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

LOUISA B. SIMPSON.

Witnesses:

H. P. SIMPSON,

S. N. SIMPSON.