

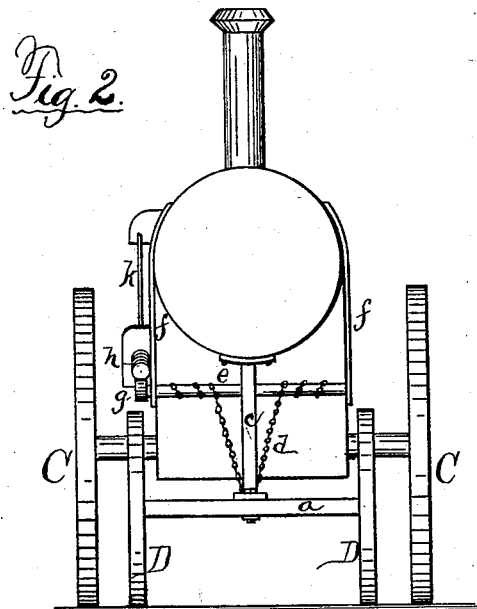
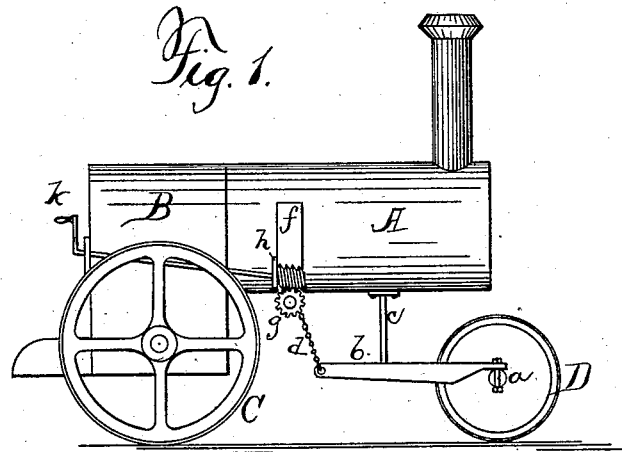
(No Model.)

T. F. & A. L. WILSON.

DEVICE FOR LEVELING BOILERS OF ROAD ENGINES.

No. 264,500.

Patented Sept. 19, 1882.



Witnesses:
D. F. Parsons.
J. R. Drake

T. F. Wilson & A. L. Wilson
Inventors,
by J. R. Drake
Atty.

UNITED STATES PATENT OFFICE.

T. FRANK WILSON AND ALBERT L. WILSON, OF GORHAM, NEW YORK.

DEVICE FOR LEVELING BOILERS OF ROAD-ENGINES.

SPECIFICATION forming part of Letters Patent No. 264,500, dated September 19, 1882.

Application filed June 28, 1882. (No model.)

To all whom it may concern:

Be it known that we, T. FRANK WILSON and ALBERT L. WILSON, citizens of the United States, residing at Gorham, in the county of Ontario and State of New York, have invented certain new and useful Improvements in Devices for Leveling Engine-Boilers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to the broad idea of keeping the boiler of a traction or other engine level in going up or down inclines or hills, to prevent the water in the boiler flowing to one end or the other, to the great danger of explosion, or putting the fires out, and other disadvantages.

The invention consists in keeping boilers of movable engines level, when moving on uneven roads, by the simple means shown and described hereinafter, or equivalent devices.

In the drawings, Figure 1 is a side elevation, and Fig. 2 a front end elevation, of a traction-engine.

A represents the boiler, and B the rear and fire-box end, of a traction-engine with wheels C D. The moving parts of the engine are not shown, as being unnecessary to the present description and invention.

As an illustration of the working of this invention, we proceed to describe the parts shown, whereby we accomplish the object stated.

To the center of the axle *a* of the front wheels is pivoted a horizontal metal bar, *b*, running back below and under the boiler A for a short distance, and made longer or shorter, according to the greater or less depression required of the boiler and the height from the ground. A short vertical post, *c*, is fastened to the under side of the boiler, a little back of the front wheels, whose lower point sets in a

socket in the horizontal bar *b*, and is there loosely attached, so as to allow an up-and-down play to the bar *b*. To the rear end of this bar *b* is fastened a chain, *d*, or its equivalent, the two ends attached to a drum or rod, *e*, running under and across the boiler-bottom. (See Fig. 2.) This drum or rod *e* works in and is held by hangers *f f*, attached to the boiler-sides or its frame-work, one end of drum having a toothed wheel, *g*, meshing into a worm, *h*, on the end of a long crank-rod, *k*, held in suitable rests, and running to the back end of engine, to be operated by the engineer, who by merely turning the crank-rod *k* by its handle makes the worm operate the drum and winds up the chain *d*, which draws up the end of the bar *b* at an incline, and thereby raises the front end of the boiler. This levels it going down inclines or hills, and by unwinding the chain when the engine starts up an incline the front of the boiler is depressed, thereby leveling it. Of course the length of post *c* and bar *b* and height of the boiler from the ground will all be properly regulated in building, so as to get the proper "pitch."

I claim—

In combination with the boiler A of a movable engine, the post *c*, horizontal bar *b*, attached to front axle, *a*, its rear end raised and lowered by chain *d*, drum or rod *e*, toothed wheel *g*, and worm *h* on crank-rod *k*, all substantially as and for the purpose specified.

In testimony whereof we affix our signatures in presence of two witnesses.

T. FRANK WILSON.
ALBERT L. WILSON.

Witnesses:

J. R. DRAKE,
C. H. KELLOGG.