

No. 675,994.

Patented June 11, 1901.

C. E. ANDERSON.
ATTACHMENT FOR TRACTION ENGINES.

(Application filed Feb. 27, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

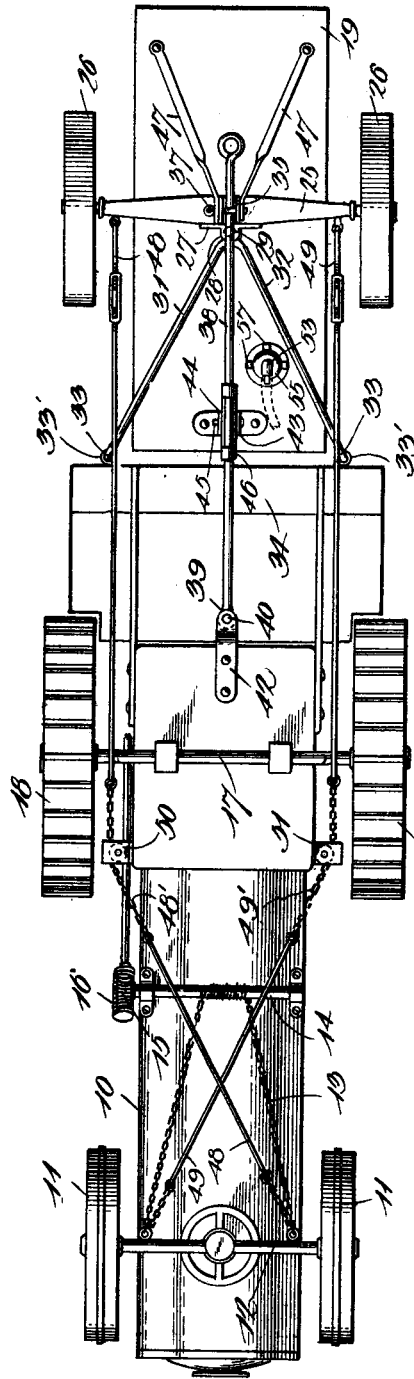
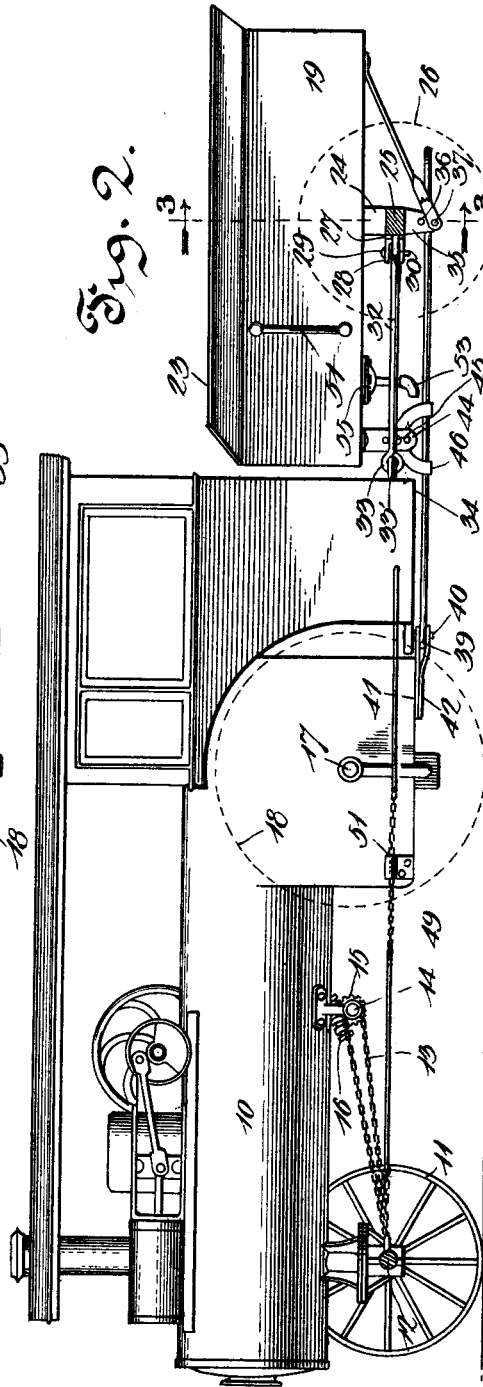


Fig. 2.



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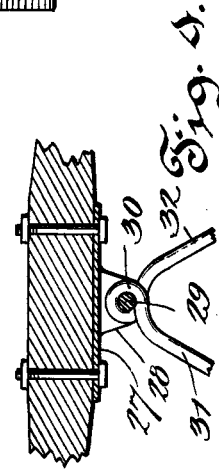
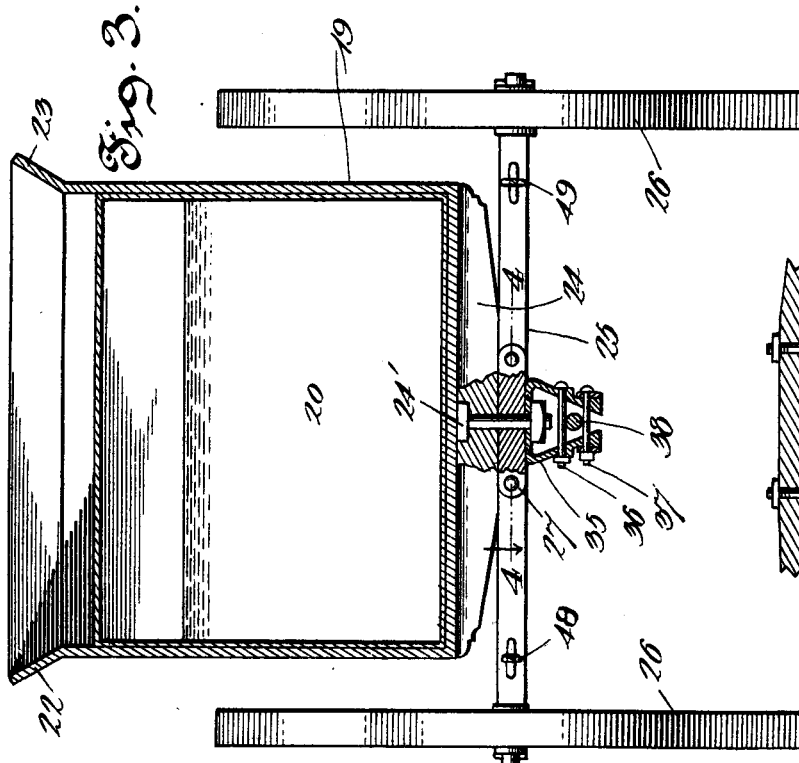
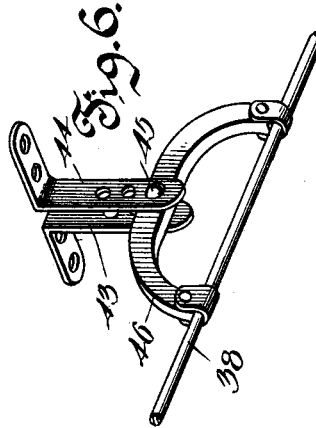
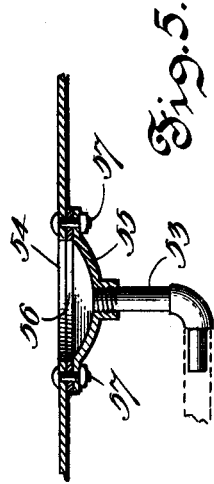
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

CHARLES E. ANDERSON, OF LAPORTE, INDIANA.

ATTACHMENT FOR TRACTION-ENGINES.

SPECIFICATION forming part of Letters Patent No. 675,994, dated June 11, 1901.

Application filed February 27, 1901. Serial No. 49,109. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. ANDERSON, a citizen of the United States, residing at Laporte, in the county of Laporte and State of Indiana, have invented a new and useful Attachment for Traction-Engines, of which the following is a specification.

This invention relates to traction-engines; and it has for its object to provide a cheap and simple tender and means for connecting it with the boiler of the engine in such manner as to permit of free movement of the tender to conform to uneven portions of the road.

A further object of the invention is to provide a construction wherein the body of the tender will at all times directly follow the engine, the axle of the tender being turned to guide the tender.

Other objects and advantages of the invention will be apparent from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a bottom plan view of a traction-engine equipped in accordance with the present invention. Fig. 2 is a side elevation of the engine with its tender. Fig. 3 is a transverse section through the tender and showing the guides for the draw-bar. Fig. 4 is a detail horizontal section through a portion of the tender-axle and showing the connection of the draw-bar which connects the tender with the engine. Fig. 5 is a detail section through a portion of the bottom of the tender and showing the connection of the water-feed pipe therewith. Fig. 6 is a perspective view showing the connection between the forward portion of the tender and the draw-bar through which the threshing-machine is connected with the engine. Fig. 7 is a detail perspective view of the bracket to which the tender draw-bar is attached.

Referring now to the drawings, there is shown a traction-engine comprising a boiler 10, having the forward steering-wheels 11, mounted at the ends of a pivoted axle 12, to which are attached the ends of a chain 13, the central portion of which is wound upon a drum 14, mounted upon the under side of the boiler. The drum is provided with a sprocket 15, and engaged therewith is a worm 16, having an

operating-shaft 16. When the worm is rotated one way or the other, the drum is correspondingly rotated to wind up either end portion of the chain and correspondingly move the front axle.

The engine is provided with a drive-axle 17, provided with traction-wheels 18, which are operated in the usual manner.

In connection with the engine there is employed a tender which includes a body portion 19, which may be rectangular, as shown, and includes a water-tank 20, above which are outwardly and upwardly flaring sides 22 and 23, which act to hold the fuel which is carried upon the top of the water-tank.

The body of the tender is provided with a transverse bolster 24, which is disposed slightly in the rear of the center of the body, so that the forward end of the tender will have a tendency to tilt downwardly, and with this bolster is engaged a king-bolt 24', which is passed through the axle 25 of the tender to permit of pivotal movement of the latter, and this axle is provided with supporting-wheels 26. A plate 27 is secured to the front face of the axle and has vertically-spaced ears 28, having alining perforations with which is engaged a pivot-bolt 29, which engages the eye 30 at the bight of a draw-bar, formed by bending a rod 30 upon itself, the diverging end portions 31 and 32 of the rod being provided with eyes 33, which are engaged with hooks or eyes 33' upon the sill 34 at the rear end of the platform of the cab of the engine. The axle is thus held against bodily movement toward or away from the engine, while it may have free pivotal movement to permit the tender to be readily drawn around curves. The lower end of the king-bolt 24' is passed through the bight of a yoke-plate 35, having bolts 36 and 37 passed transversely through the legs thereof and spaced vertically, and between these bolts, which form guides, is passed the stem of a draw-bar 38, having an eye 39, through which is passed a pin 40, engaged with perforations in vertically-spaced plates 41 and 42, secured to the under side of the fire-box of the boiler. This draw-bar is intended for connection with the threshing-machine, and the strain exerted by said machine is thus applied directly to the boiler.

Ears 43 and 44 are secured to the under

side of the tender adjacent to the front end thereof and have transversely-aligning perforations adapted for engagement interchangeably by a pivot-pin 45, which is passed through a U-shaped rocker 46, the ends of which are provided with clips 46, through which the draw-bar is passed. The front end of the tender is thus prevented from tilting in either direction to an excessive degree, while there is that freedom of movement between the engine and tender which permits of both running smoothly and conforming individually to the uneven portions of a road. The rear end of the bar 38 has an eye to facilitate connection with a threshing-machine, and brace-bars 47 are connected with the lower bolt 37 and are disposed to diverge upwardly and have their upper ends secured to the under side of the body of the tender.

In order that the axle of the tender may be turned with the front axle of the engine, rods and chains 48 and 49 are attached to hooks or eyebolts at the ends of the axle of the tender, said rods and chains passing forwardly and the chains being engaged over rollers 50 and 51, after which they are crossed and attached to opposite ends of the front axle of the engine.

The guide-rollers may of course be placed wherever desired to secure the most efficient results, and the rods are provided with turn-buckles, as shown, so that they may be adjusted to place the chains under proper tension.

To indicate the height of water in the tank of the tender, a gage-glass 51 is secured to one side thereof, and to draw water from the tank a feed-pipe or suction-pipe 53 is connected thereto. An opening 54 is formed in the bottom of the tank and against the under side of the tank, and closing the opening is a concaved plate 55, seated upon a gasket 56 and held in place by bolts 57. Centrally of

this plate is a screw-threaded perforation, with which is engaged the suction-pipe referred to.

What is claimed is—

1. The combination with a traction-engine including a boiler and supporting-wheels, of a tender having an axle pivoted thereto, means for holding the body of the tender in alignment with the body of the boiler, means for turning the axle from the boiler, and a draw-bar comprising diverging arms pivoted at their inner ends to the axle in advance of and adjacent to the pivot of the axle, and pivoted at their outer ends to the boiler, whereby the draw will be directly upon the axle and pivotal movement of the axle will be permitted.

2. The combination with a traction-engine including a boiler and supporting-wheels, a tender having a pivoted axle, a draw-bar pivoted to the engine for movement in a vertical plane only and pivoted to the axle of the tender to permit of pivotal movement thereof, a draw-bar connected with the engine and passed beneath the tender and the axle thereof, means for holding said bar against downward movement from the tender, and connections between said bar and the body of the tender to prevent tilting of the latter.

3. The combination with a locomotive having a draw-bar connected therewith, of a tender connected with the locomotive and beneath which said draw-bar is passed, an axle for the tender having supporting-wheels and below which the draw-bar is disposed, and a rocker pivotally mounted upon the under side of the tender forward of its axle and with which the draw-bar is slidably engaged.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES E. ANDERSON.

Witnesses:

MATE G. LUIE,
HERMAN W. SALLWASSER.