

Z. TISHER & C. T. LITCHFIELD.
DEVICE FOR OILING THE FLANGES OF CAR WHEELS.
APPLICATION FILED MAY 17, 1912.

1,057,299.

Patented Mar. 25, 1913.

2 SHEETS—SHEET 1.

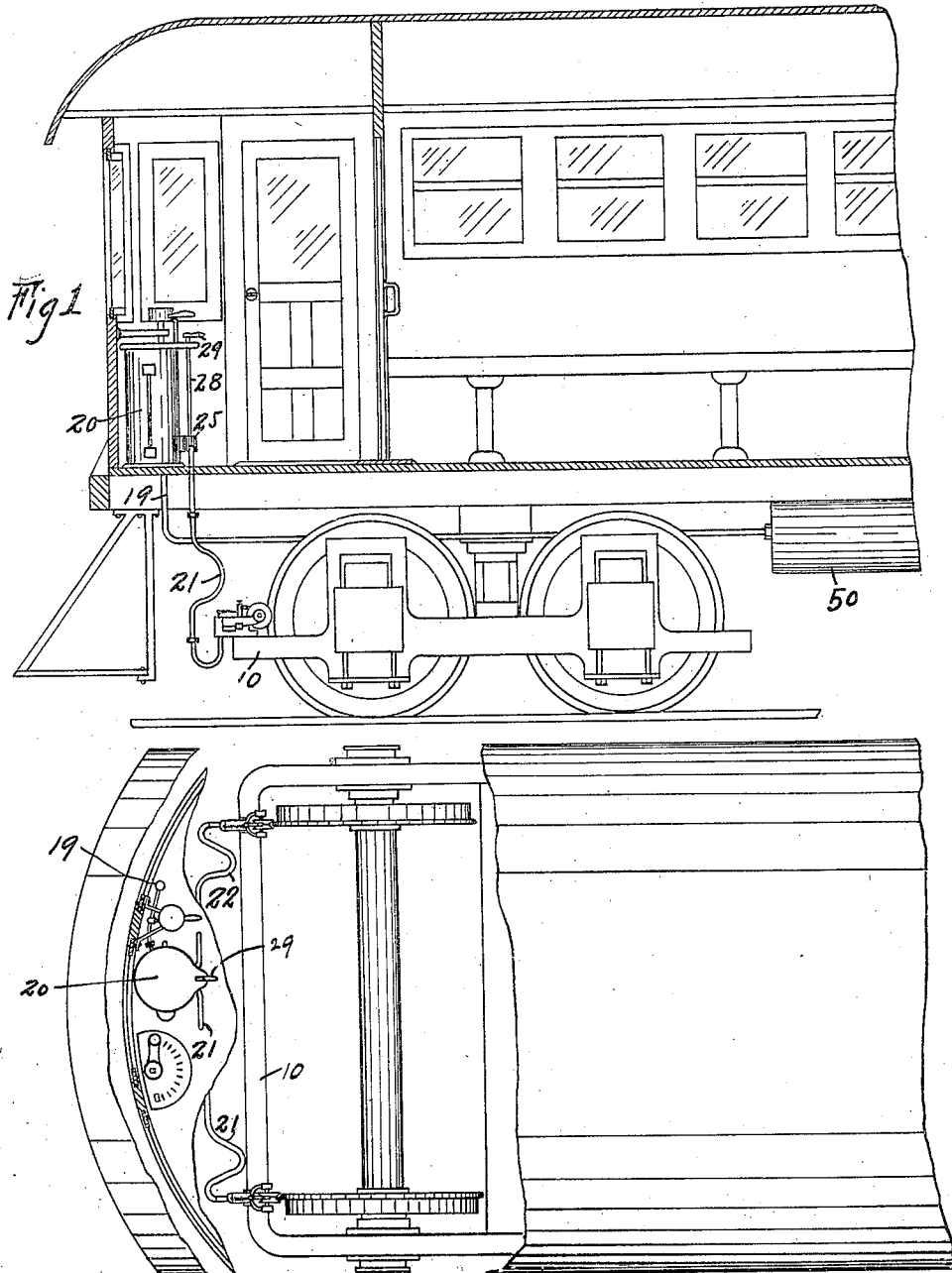


Fig. 2

WITNESSES

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INVENTORS

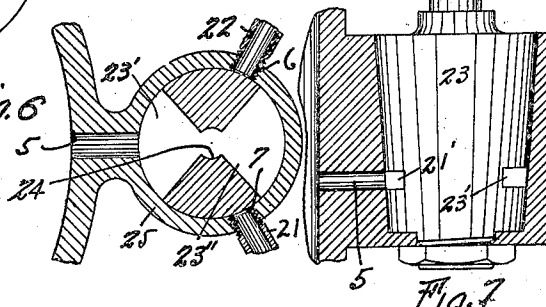
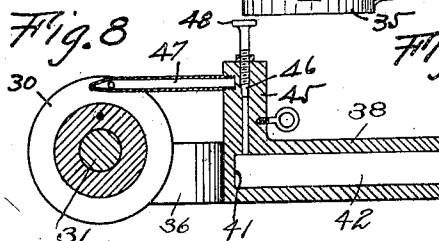
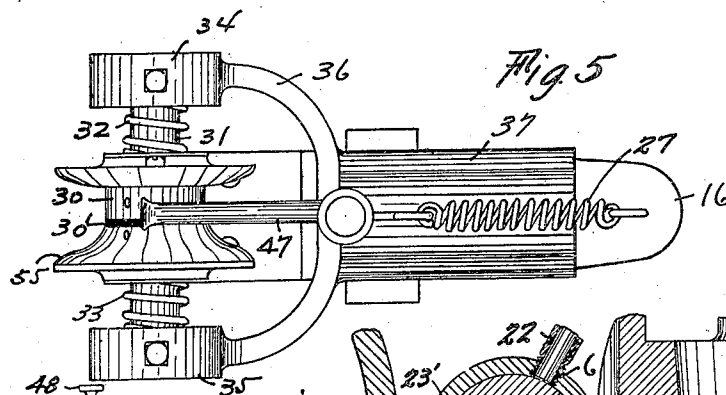
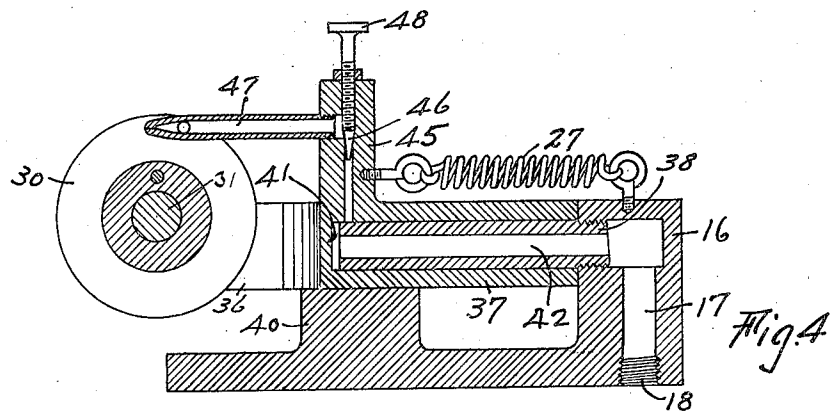
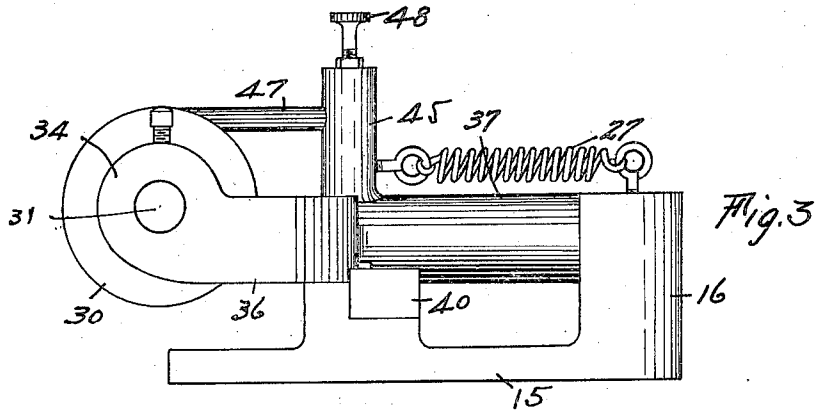
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UNITED STATES PATENT OFFICE.

ZACHARIAH TISHER AND CHARLES T. LITCHFIELD, OF SPOKANE, WASHINGTON.

DEVICE FOR OILING THE FLANGES OF CAR-WHEELS.

1,057,299.

Specification of Letters Patent.

Patented Mar. 25, 1913.

Application filed May 17, 1912. Serial No. 698,031.

To all whom it may concern:

Be it known that we, ZACHARIAH TISHER and CHARLES T. LITCHFIELD, citizens of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Devices for Oiling the Flanges of Car-Wheels; and we 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 appertains to make and use the same.

This invention relates to devices for oiling the flanges of car wheels and it consists in the novel construction hereinafter described and claimed.

In the accompanying drawings forming part of this application:—Figure 1 is a view in side elevation of a portion of the body of a car mounted on a truck with one of the oiling devices applied to the truck. Fig. 2 is a top plan view with parts broken away showing two of the oiling devices mounted on a car truck and applied to the flanges of both of the front wheels. Fig. 3 is a view of the oiling device in side elevation. Fig. 4 is a vertical longitudinal section through Fig. 3. Fig. 5 is a top plan view of the construction shown in Fig. 3. Fig. 6 is a horizontal section through the casing of the valve connected with the oil tank. Fig. 7 is a vertical section through the valve casing. Fig. 8 is a view partly in vertical section of the member carrying the oiling wheel and having a bore connected with an oil supply.

Mounted on the frame 10 of an ordinary or any preferred car truck is an oiling device comprising a bracket member 15 having an upstanding device 16 at one end, which is provided with a vertical bore 17 and has a screw threaded portion 18 at the lower end for connection with a source of oil supply.

We employ preferably an oil supply originating from a tank 20 which may be located on the car platform and which has connection by means of flexible metallic tubing 21 with the bore 17 at the point 18. Tubing 22 connects with a similar oiling device for the other wheel on the same axle. The tank 20 may be connected with a valve 25 through which oil is supplied to the devices under consideration. This valve is shown in Figs. 6 and 7 and the casing has an inlet 5 from the oil tank and outlets 6 and 7 leading to the respective oiling de-

vices. The valve plug has slots 23' and 23'' connected by a central passage 24, permitting the flow of oil to either outlet, and closing both outlets. Normally the oiling wheel, contacting with the flanges of the car wheel, is held away from the latter by a spring 27, but when it is intended to apply oil to the wheel, air pressure is admitted, and drives the plunger and oiling wheel against the flange of the car wheel, overcoming the action of spring 27.

The oiling wheel is indicated by 30 and is formed in two parts, separated by a washer 30'. When the flanges have become worn, the washer may be removed, for the purpose of reducing excessive space between such flanges.

Wheel 30 is mounted on a shaft 31 and is held centrally thereon, or nearly so, by means of coiled springs 32 and 33 which bear against the sides of the oiling wheel and against members 34 and 35 of a forked member 36, which is in turn carried by body portion 37 operating on tubular member 38. Portion 37 is guided by member 40, and includes a member forming a plunger 41, located as shown with reference to tubular member 38. The bore 42 of the latter connects with bore 17, and oil under pressure admitted to said bores acts on the plunger, for advancing the oiling wheel so that it will contact with the car wheel.

A vertical member 45 is provided with, a bore 46 leading to a tubular oil supply member 47 discharging at a point between the flanges of the oiling wheel. The oil supply is regulated by a needle valve 48, and oil is admitted to bore 46 when the plunger and trolley have advanced sufficiently to cause the plunger to clear bore 46.

Air is admitted by pipe 19 to the upper portion of tank 20, from air brake tank 50. Suitable pressure is maintained in tank 20, corresponding with the pressure in the train pipe, and the oiling devices may be operated without affecting the brakes, owing to the small amount of air required for the said devices, compared with the volume of air in tank 20.

It will be observed that one of the flanges of the oiling wheel presents in cross-section a compound curve at 55 and the other flange a simple curve.

We claim:—

1. In a device of the class described, an oiling wheel, means for mounting the wheel,

means for normally holding the wheel away from a car wheel, a tubular member for receiving a column of oil, a device connected with the wheel mounting means, arranged to be reciprocated on the tubular member, and having a bore communicating with the tubular member, and means for admitting air pressure to the column of oil for operating the reciprocating member.

2. In a device of the class described, an oiling wheel arranged to be mounted on a car truck, means for advancing said wheel into contact with a car wheel by air pressure exerted on a column of oil, and oil feeding means for the wheel first mentioned, said means being fed from the aforesaid column of oil.

3. In a device of the class described, a frame arranged to be mounted on a car truck, said frame being provided with a bore at one end, a tubular member connected with said bore, and a reciprocating member mounted on the tubular member and being provided with a bore having connection with the bore of the tubular member, an oiling wheel carried by the reciprocating mem-

ber, and a tubular device connected with the reciprocating member and arranged to convey oil to the flange of the wheel.

4. In a device of the class described, a frame, a guiding member carried thereby, a source of air supply, a source of oil supply, said frame being provided with a bore connected with the source of oil supply, a tubular member connected with the frame and with said bore, a reciprocating member engaging the guiding member and carried by the tubular member and provided with a bore connected with said tubular member, a spring for normally retaining the reciprocating member in a position to close the bore between the tubular member and reciprocating member, an oiling wheel carried by the reciprocating member, and means for conveying oil to the flange of said wheel.

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

ZACHARIAH TISHER.

CHARLES T. LITCHFIELD.

Witnesses:

H. E. SAMS.

C. H. COYLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."