

(No Model.)

W. RICHARDSON.

PROTECTING PLATE FOR GEARING OF STEAM ROAD WAGONS.

No. 534,915.

Patented Feb. 26, 1895.

Fig. 1.

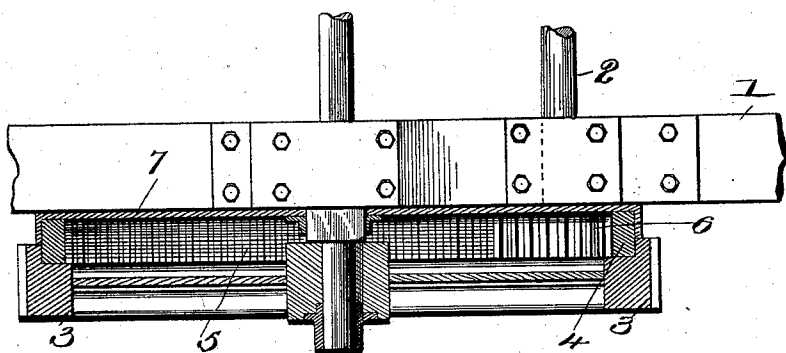


Fig. 2.

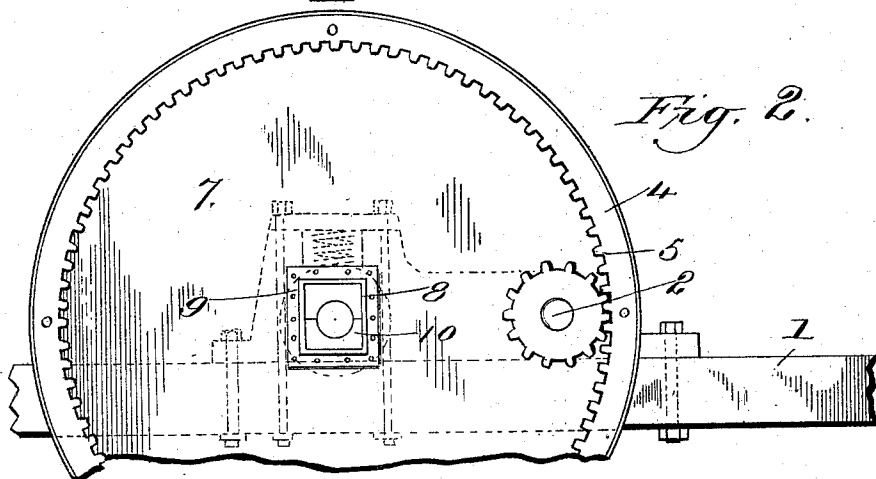
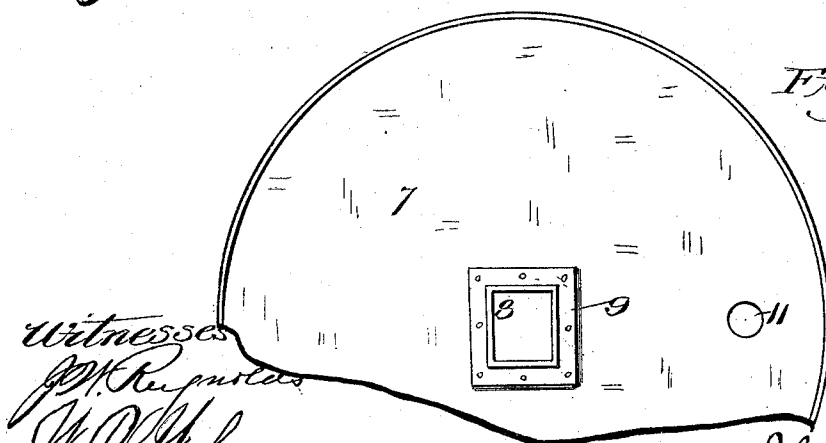


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

WARREN RICHARDSON, OF TRUCKEE, CALIFORNIA.

PROTECTING-PLATE FOR GEARING OF STEAM ROAD-WAGONS.

SPECIFICATION forming part of Letters Patent No. 534,915, dated February 26, 1895.

Application filed November 7, 1894. Serial No. 528,147. (No model.)

To all whom it may concern:

Be it known that I, WARREN RICHARDSON, a citizen of the United States, residing at Truckee, in the county of Nevada and State of California, have invented certain new and useful Improvements in Protecting-Plates for Gearing of Steam Road-Wagons; and I 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.

My invention relates to improvements in steam road wagons, the purpose of the same being to provide a protecting plate for the gearing, secured to the main wheel of the wagon to prevent the entrance of dust and dirt to the said gearing, causing the cutting out of the said gearing, and to hold the oil or grease from running off said gearing.

The invention consists of a thin metallic plate having a rectangular slot at the center thereof provided with a suitable protecting bracket, the said plate fitting over the boxing in which the shaft is located, and fitting closely the sides of the gear wheel and the gear mechanism.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 represents a plan view partly in section, of one side of a wagon embodying my invention. Fig. 2 is a side elevation of the same, with the main drive wheel removed. Fig. 3 is a similar view partly broken away showing the protecting plate detached.

Like reference numerals indicate like parts in the various views.

By reference to the drawings it will be seen that 1 represents one of the side supporting beams of the wagon, through which passes the main drive shaft 2 of the engine. Through the center of the said beam and moving in boxes therein is the shaft upon which the main drive wheel 3 is mounted. Keyed or otherwise suitably secured to the inner side of the main drive wheel 3 is a gear wheel 4, having internally projecting teeth 5 which are engaged by a pinion 6 secured to the outer end of the main drive shaft 2 of the engine. Between the beam 1 and the gear wheel 4, and fitting closely thereto, is my protecting

plate 7, which is provided with a rectangular opening 8 at the center thereof having a protecting or strengthening bracket 9 fitting therein. This plate is a circular disk made out of thin sheet iron or steel and fits over the boxing 10 in which the shaft 2 is journaled. The said plate is therefore held stationary. It is provided with an annular flange around its periphery and extends out to the point just beyond the internal teeth of the main gear wheel 4, that is, a sufficient distance to cover all the operative parts of said gear wheel, the said flange fitting around the edge of and inclosing the said gear wheel. At one side of the said plate the same is provided with a further opening 11 for the passage of the main drive shaft 2 carrying the pinion 6 thereon.

By the foregoing description it is evident that the plate described is placed in such a position and held therein so as to form a complete housing on the inside of the gear, the outside thereof being protected by an outside lining in the wheel.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a steam road wagon, the combination with the main traction wheel, having an internally toothed gear wheel secured thereto, and a pinion secured to the main drive shaft meshing with said gear wheel, of a protecting plate for the said gearing having a rectangular slot at the center thereof, fitting over the boxing in which the shaft carrying the main traction wheel is mounted, and an annular flange surrounding said gear wheel whereby a complete housing on the inside and edge of the gear is provided, thereby protecting the said gear from the introduction of dust thereto, and holding the oil or grease from running off said gear, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WARREN RICHARDSON.

Witnesses:

HENRY F. RHODES,
G. W. CURLESS.