

No. 645,776.

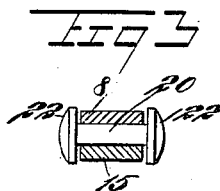
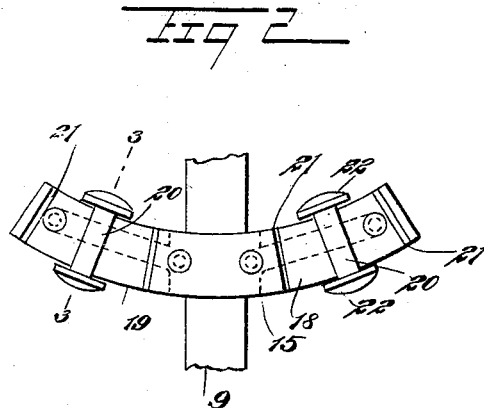
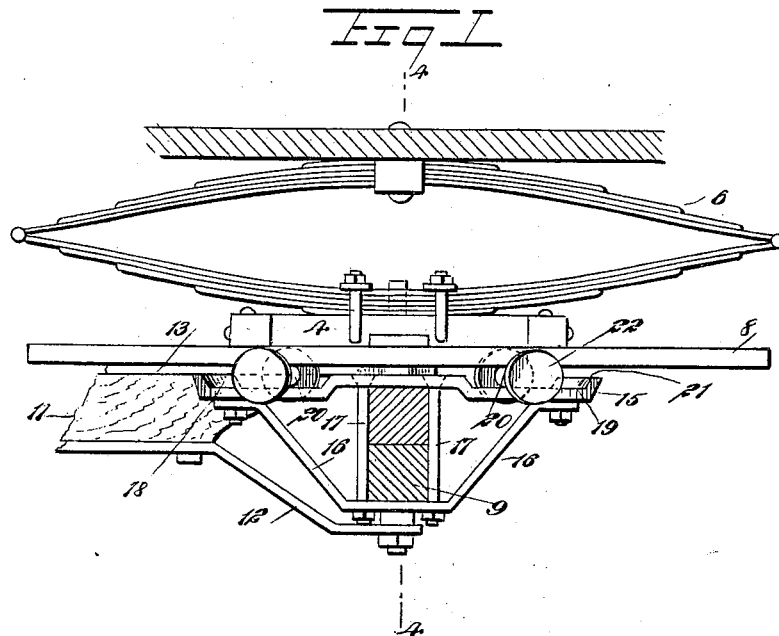
Patented Mar. 20, 1900.

A. E. ABBOTT.
FIFTH WHEEL.

(Application filed Oct. 20, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:
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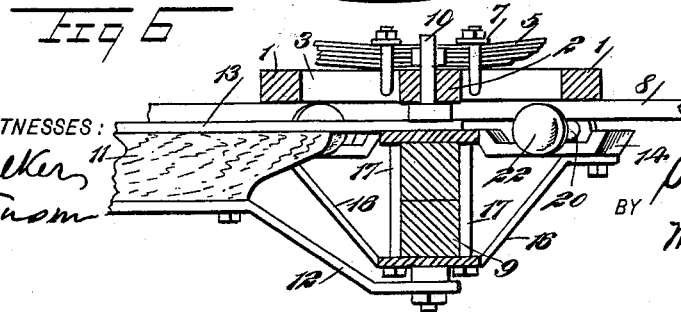
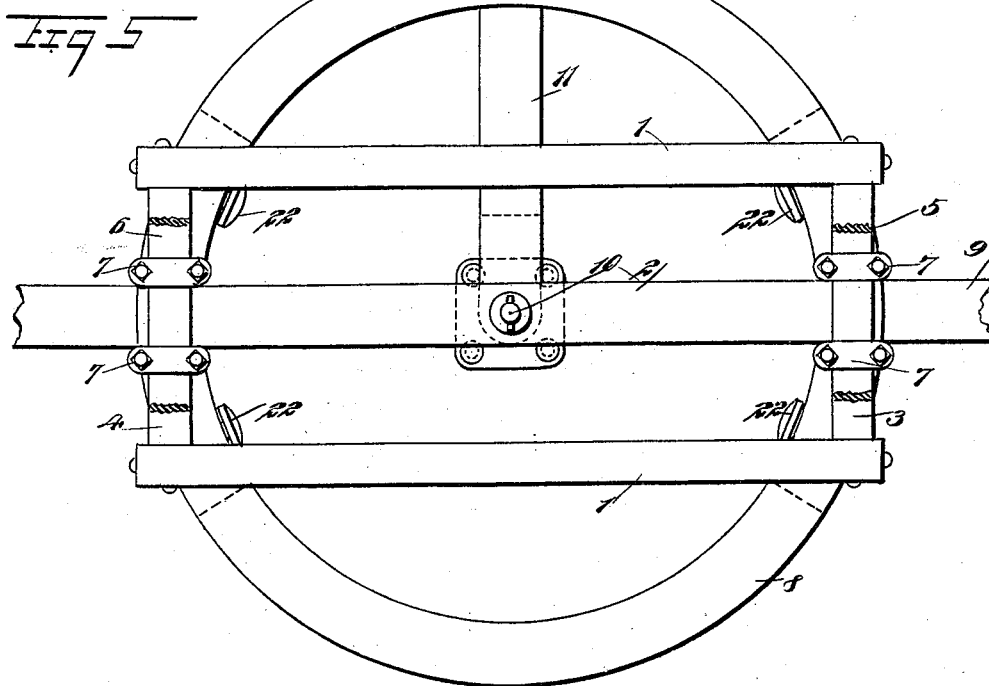
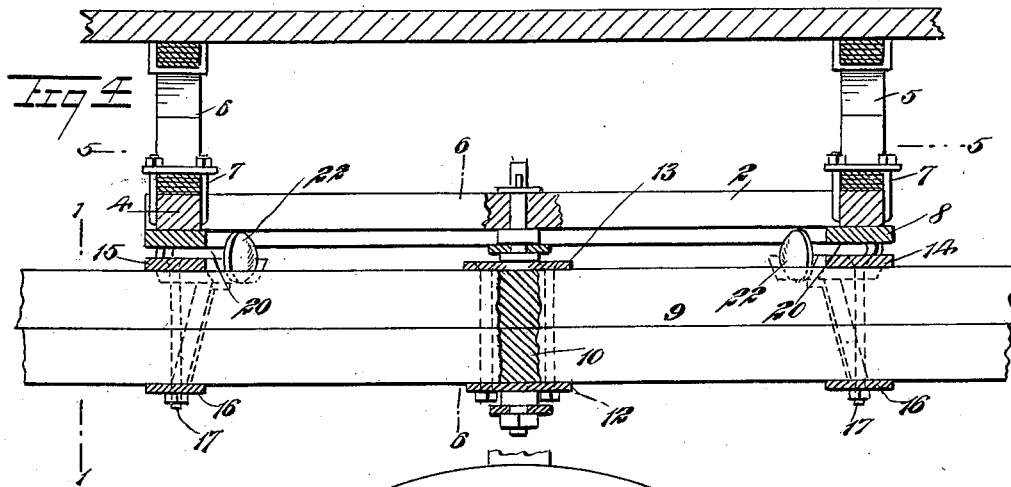
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2 Sheets—Sheet 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

AMBROSE EDGAR ABBOTT, OF AMERICAN FORK CITY, UTAH, ASSIGNOR OF
ONE-HALF TO HULDAH C. NAYLOR, OF SALT LAKE CITY, UTAH.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 645,776, dated March 20, 1900.

Application filed October 20, 1899. Serial No. 734,217. (No model.)

To all whom it may concern:

Be it known that I, AMBROSE EDGAR ABBOTT, of American Fork City, in the county of Utah and State of Utah, have invented a new and Improved Fifth-Wheel, of which the following is a full, clear, and exact description.

This invention relates to improvements in fifth-wheels for vehicles; and the objects are to provide a fifth-wheel of comparatively-simple construction and of two parts, whereby the friction will be reduced to a minimum, and, further, to so construct the device that the use of grease or other lubricant is made unnecessary, thus preventing the accumulation of dust and dirt mixed with a sticky substance.

I will describe a fifth-wheel embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a partial elevation and partial section on the line 1 1 of Fig. 4 of a fifth-wheel embodying my invention. Fig. 2 is a plan view of one of the bearing-plates. Fig. 3 is a section on the line 3 3 of Fig. 2. Fig. 4 is a section on the line 4 4 of Fig. 1. Fig. 5 is a partial plan and partial section on the line 5 5 of Fig. 4, and Fig. 6 is a section on the line 6 6 of Fig. 4.

In carrying out the invention I employ a spring-supporting frame consisting of the side strips 1 and a center-strip 2, the several strips being connected at the ends by cross-strips 3 4. The springs 5 6 are connected, respectively, to the strips 3 4 so as to extend longitudinally of the vehicle-body by means of clips 7. Secured to the end pieces or strips 3 4 is the upper ring-shaped plate 8 of the fifth-wheel, and passing through the center strip 2 is the king-bolt 10, which is fastened to the axle by clip-arms, from which the bolt extends upward. From the reach 11 a plate 12 extends downward and has swinging connection with the king-bolt at the under side of the axle 9, and a plate 13 extends from the upper side of the reach 11 and engages with the king-bolt above the axle.

Attached to the axle 9 at opposite sides of the king-bolt are segmental plates 14 15, which form the lower portions of the fifth-wheel. Each segmental plate is secured to the axle by means of braces 16, which have their ends secured to the plates near the end, and bolts 17 pass through the segmental plates and also through a portion of the braces 16, which passes or engages underneath the axle. These bolts 17 are arranged on opposite sides of the axle, and their heads are countersunk into the plates, as plainly indicated in the drawings. Each segmental plate is provided with two depressions 18 19, one depression being forward of the axle and the other rearward thereof. In each depression is loosely placed a bearing-roller 20, upon which the ring-plate 8 is designed to bear. These rollers 20 may move freely along the bottom wall of the depressions, but their movement lengthwise of the plate will be limited by the end walls 21 of the depressions, and to prevent their displacement lengthwise the opposite ends of the rollers are provided with heads 22, which engage with the outer and inner edges of the plates and also with the outer and inner edges of the ring-plate. The rollers 20 are of sufficient diameter to support the ring-plate 8 clear of the segmental plates.

In operation it is obvious that in the act of turning the vehicle the ring-plate 8 will move freely on the rollers and no grease or other lubricant will be required.

Having thus fully described my invention, I claim as new, and desire to secure by Letters Patent—

1. A fifth-wheel, comprising a ring-plate, to which a spring or springs is or are attached, segmental plates secured to the axle at opposite sides of the king-bolt, rollers mounted in depressions formed in opposite ends of the segmental plates, and heads on the ends of said rollers to prevent their displacement lengthwise, substantially as specified.

2. A fifth-wheel, comprising a spring-supporting frame, a ring-plate secured to the said frame, an axle, a king-bolt passing through said frame, segmental plates secured to the axle at opposite sides of the king-bolt, and rollers mounted to move longitudinally of the

segmental plates in recesses formed in said plates, substantially as specified.

3. A fifth-wheel, comprising a ring-plate,
an axle, segmental plates, braces extended
5 from the axle to the ends of the segmental
plates, fastening-bolts passing through said
plates and through the braces, and headed

rollers arranged in depressions in said segmental plates and upon which the ring-plate rests.

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Witnesses:

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