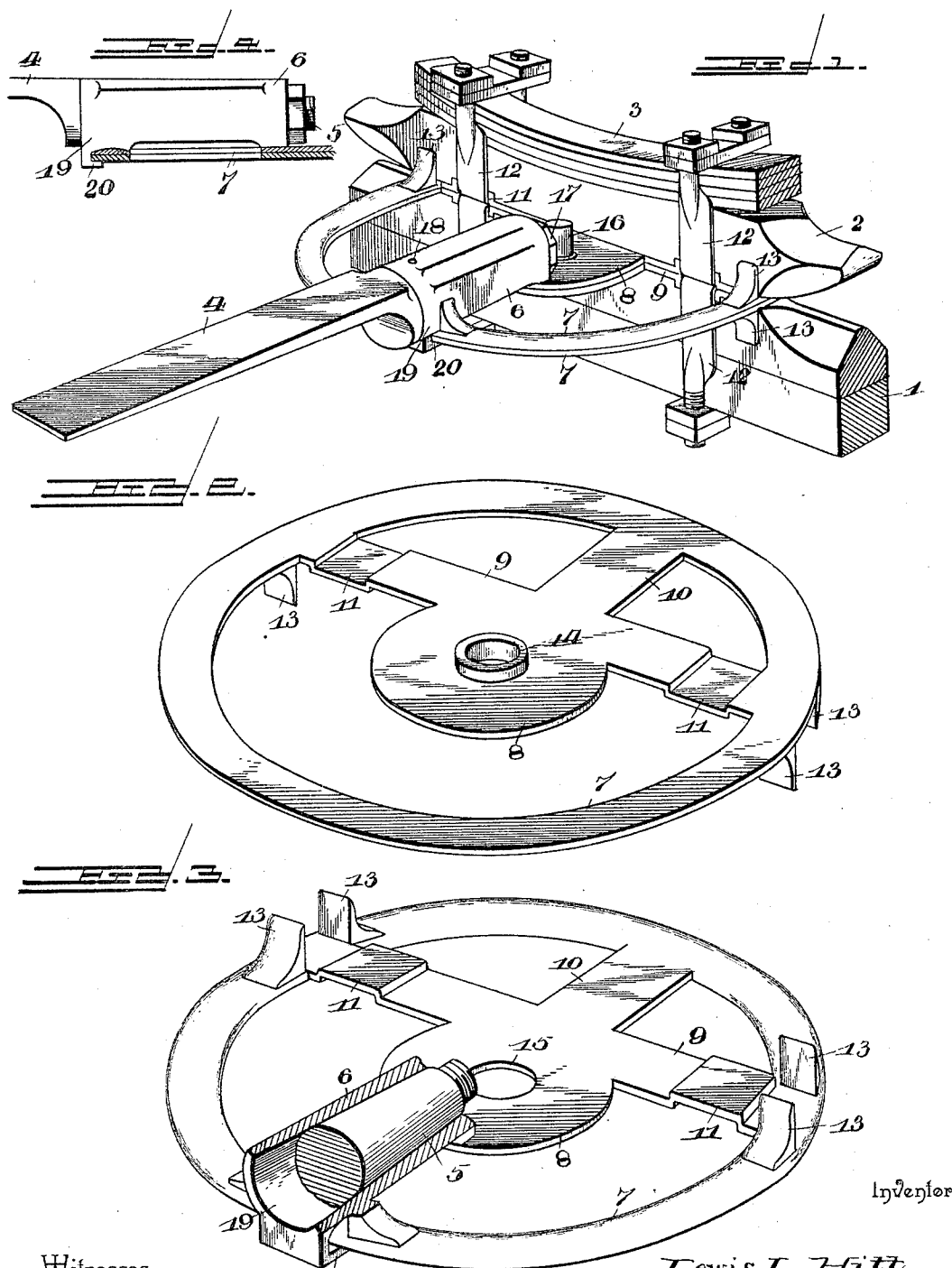


(No Model.)

L. L. HITT.
FIFTH WHEEL.

No. 581,724.

Patented May 4, 1897.



Witnesses

W. T. Doyle
V. B. Hillyard

By his Attorneys,

Lewis L. Hitt.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

LEWIS L. HITT, OF RINGGOLD, GEORGIA.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 581,724, dated May 4, 1897.

Application filed February 24, 1896. Serial No. 580,464. (No model.)

To all whom it may concern:

Be it known that I, LEWIS L. HITT, a citizen of the United States, residing at Ringgold, in the county of Catoosa and State of Georgia, have invented a new and useful Fifth-Wheel, of which the following is a specification.

This invention relates to fifth-wheels for vehicles, and aims to secure an extended bearing-surface between the component parts and provide for the firm attachment of the same to the head-block and the axle by means of clips, the latter having their closed ends beyond the plane of the engaging or bearing surfaces of the parts, so as not to interfere with their free movements.

Other objects and advantages are attendant upon the peculiar construction of the device and will appear as the nature of the invention is better understood; and to this end the improvement consists in certain details and combinations of the parts which hereinafter will be more fully disclosed, illustrated in the drawings, and claimed.

In the accompanying drawings is shown an embodiment of the invention, although slight changes in the details and arrangement may be made without departing from the spirit of the invention.

In said drawings, Figure 1 is a perspective view of a fifth-wheel, showing the parts assembled. Fig. 2 is a detail perspective view of the lower member. Fig. 3 is a detail perspective view of the upper member, having a portion of the socket broken away and showing the reach-iron operatively related. Fig. 4 is a detail section showing the positive connection between the bearing-sleeve and the lower member, which prevents the members of the fifth-wheel from separating at their rear ends.

Referring to the drawings, in which the same numerals denote corresponding parts in all the figures, 1 indicates a vehicle-axle of ordinary construction; 2, the head-block, upon which is mounted the bow-spring 3, and 4 the reach-iron having a spindle 5 at its front end journaled in a bearing-sleeve 6, forming part of the upper member of the fifth-wheel.

The fifth-wheel is formed of similarly-constructed members each comprising a ring 7, a centrally-disposed plate 8, of approximately

circular outline, a bar 9, forming a chord of the ring 7 and attached at its ends to opposite parts of the said ring, and a stay 10, connecting the bar 9 at a middle point with the arc of the circle or ring 7, subtended by the bar 9. The bar 9 and stay 10 are right-angularly disposed and connect the central plate 8 with the ring 7, and these parts—that is, ring 7, plate 8, bar 9 and stay 10—have their bearing or surfaces in the same plane. The bar 9 has depressions 11 near each end for the reception of the closed ends of the clips 12, by means of which the members of the fifth-wheel are secured either to the axle or the head-block, and these depressions 11 are sufficiently deep to admit of the closed ends of the clips extending below the bearing or engaging surfaces of the members with which they are engaged. These clips serve to secure the members to their respective parts and to connect the subjacent elements of the latter, as clearly indicated in Fig. 1. Pairs of lugs 13 project outwardly from the ring 7 and embrace the sides of either the axle or the head-block, and are located in line with the bar 9. These lugs relieve the clips of torsional strain and act in conjunction with the said clips to maintain the members in fixed relation upon the parts to which they are attached. One of the members, preferably the lower, has its central plate provided with a tubular journal 14, which enters a corresponding opening 15 in the central plate of the upper member, so as to maintain the parts in working relation and relieve the king-bolt 16 of wear incident to the oscillatory movements of the said members.

The members comprising the fifth-wheel will be malleable cast. However, this is not essential, as they may be welded or formed in any desired manner either of wrought iron or steel or of any suitable material. The bearing-sleeve 6 is in line with the stay 10 and connects the central plate with the ring at a point diametrically opposite to the stay 10. The reach-iron 4 as shown is single; but it may have any of the usual shapes, according to the nature of the running-gear with which it is to be used, and its spindle 5 is journaled in the bearing-sleeve 6 and is held in position by binding-nuts 17, mounted upon the threaded end of the said spindle. An oil-opening

18 is formed in the bearing-sleeve 6 for the introduction of a lubricant for oiling the said spindle.

The fifth-wheel constructed substantially as herein shown can be readily attached to the axle or head-block by the same means employed for securing together the contiguous elements forming the parts to which the said members are secured, and the parts of the members are firmly braced and present an extended bearing-surface, and by reason of the bearing-surfaces being continuous the chance for the lodgment of dirt and foreign matter therebetween is lessened, and the members need not be lubricated as frequently as would be required if the said bearing or engaging surfaces were made segmental or interrupted.

By having the reach-iron journaled to the fifth-wheel all torsional strain is removed from the running-gear. While it is preferred to secure the members to their respective parts by means of clips, it is to be understood that bolts, screws, or similar fastenings can be used and are contemplated within the scope of the invention. The circular form of the members is the most ordinary, yet other shapes may be resorted to and the front portion of the members may be omitted without departing from the nature and essence of the invention.

To prevent the members from separating at their rear ends, which they are wont to do after the fifth-wheel has been in use a sufficient time to cause a looseness in the joints, the bearing-sleeve 6 is projected rearwardly beyond the fifth-wheel, as shown at 19, and is formed with or terminates in a hook to extend over and embrace the rear edge portion of the lower member, thereby maintain-

ing the two members in close relation at all times, as will be readily understood.

Having thus described the invention, what is claimed as new is—

1. In a fifth-wheel, a member comprising a ring, a centrally-disposed plate, a bar connecting the plate with the ring and having depressions near its ends, a stay connecting the bar with the ring, and a bearing-sleeve connecting the centrally-disposed plate with the ring and having the spindle of the reach-iron journaled therein and having its rear end extended and terminating in a hook to embrace the edge of the opposite or companion member, substantially as set forth.

2. The herein-described fifth-wheel, formed of two similarly-constructed members, each comprising a ring, a centrally-disposed plate of circular outline, a bar connecting the plate with the ring and having depressions near its ends to receive the closed ends of the fastening-clips, a stay connecting the bar with the ring, pairs of lugs projecting outwardly from the ring at the terminal ends of the bar and in line with the latter, a tubular journal on one of the plates to fit into a corresponding opening in the opposite plate, and a bearing-sleeve forming a part of one of the members and attached at its ends to the central plate and the ring and having its rear end extended and terminating in a hook to embrace the edge of the opposite or companion member, substantially as and for the purpose set forth.

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

LEWIS L. HITT.

Witnesses:

R. A. BOWIE,
W. S. HAFFINE.