

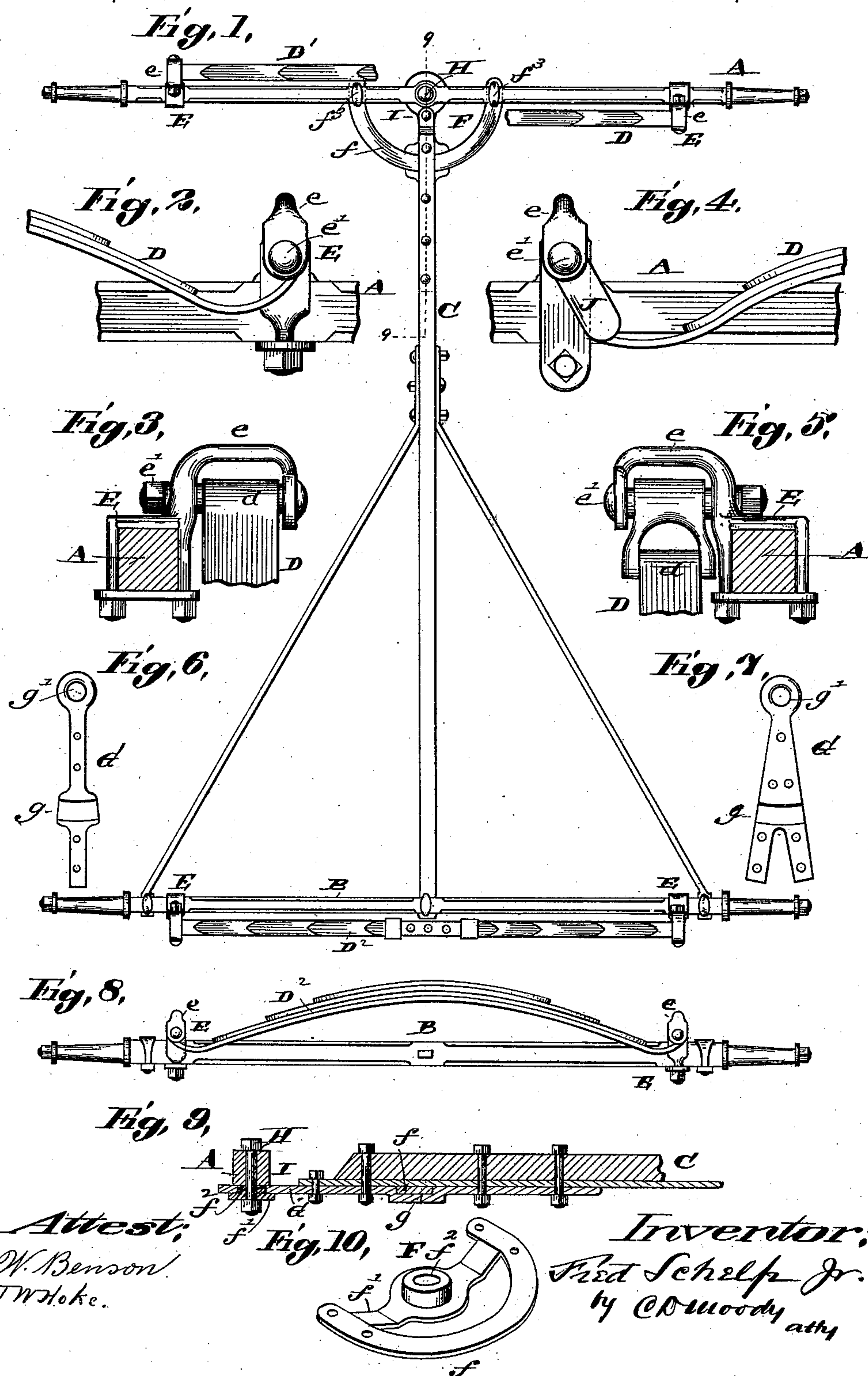
(No Model.)

F. SCHELP, Jr.

VEHICLE GEAR.

No. 358,410.

Patented Feb. 22, 1887.



Attest:
W. Benson
J. W. Hoke.

Inventor:
Fred Schelp Jr.
by C. D. Moody atty

UNITED STATES PATENT OFFICE.

FRED. SCHELP, JR., OF BALLWIN, MISSOURI, ASSIGNOR OF ONE-HALF TO
GEORGE H. SCHELP, OF SAME PLACE.

VEHICLE-GEAR.

SPECIFICATION forming part of Letters Patent No. 358,410, dated February 22, 1887.

Application filed June 1, 1886. Serial No. 203,723. (No model.)

To all whom it may concern:

Be it known that I, FRED. SCHELP, Jr., of Ballwin, St. Louis county, Missouri, have made a new and useful Improvement in Vehicle-
5 Gears, of which the following is a full, clear, and exact description.

The improvement relates partly to the mode of attaching the springs and partly to the construction of the fifth-wheel. In the annexed
10 drawings, making part of this specification and exhibiting the best mode known to me of carrying out the improvement—

Figure 1 is a plan of the gear, portions of the springs being broken away. Fig. 2 is a
15 side elevation, upon an enlarged scale, showing the mode of attaching the springs to the axle. Fig. 3 is an end elevation of the parts of Fig. 2. Fig. 4 is a side elevation showing a modification of the spring attachment. Fig. 5 is an end elevation of the
20 parts of Fig. 4. Fig. 6 is a plan of the iron that connects the perch with the front axle and in which the fifth-wheel rests. Fig. 7 is a plan of an iron adapted to a forked perch.
25 Fig. 8 is an elevation of the rear end of the gear. Fig. 9 is a vertical section on the line 9 9 of Fig. 1; and Fig. 10 is a view in perspective of the fifth-wheel.

The same letters of reference denote the same
30 parts.

The front axle, A, the hind axle, B, and the perch C, saving as modified by the present improvement, are of the customary form. The
springs D D', instead of being arranged directly above the axle, are at the side thereof,
35 being both in front and rear of the axle, in pairs, as shown in connection with the front axle, Fig. 1. Although in that figure but one spring is shown in connection with the hind
40 axle, in practice two springs, D², are attached to the hind axle when two are used at the front.

For attaching the springs the improved clip E is used. The novel feature of this clip is the provision whereby it is enabled to support
45 the spring end above and at the side of the axle. For this purpose the clip is supplied with an arm, e, which extends upward and then horizontally and laterally from the axle, and the spring end is attached to the clip by
50 means of the bolt e', which passes through the eye d of the spring-arm and is held in the ver-

tical portions of the clip-arm, substantially as is represented in Figs. 2, 3 more distinctly.

The other principal feature of the improvement is the fifth-wheel mechanism. F represents the fifth-wheel, consisting of the semi-
55 circular bar f, the centrally-depressed bar f', attached at its ends to the bar f and at its center having the tubular projection f². The fifth-wheel is secured to the axle by
60 means of the clips f³ f³, Fig. 1, at each side of the position commonly occupied by the king-bolt. The fifth-wheel is thus upheld against the under side of the axle, where it is well
65 out of the way of the springs. Its bar f is, as shown in Fig. 9, supported at g upon the iron G, which connects the reach C with the axle A. The iron and reach are relatively
70 so constructed as, by depressing the iron, as shown at g, to include the bar f between them and provide not only a bearing for the bar f, but also for confining the fifth-wheel to the perch, so that it cannot easily be with-
75 drawn therefrom, but at the same time permitting of the free swinging movement of the perch and bar upon each other. An additional connection for the fifth-wheel is the bolt H, which passes downward through the axle
80 at the point where the king-bolt is generally used, and through the tubular projection f² of the fifth-wheel. This projection f² forms a bearing upon which the iron G turns as the axle swings upon the perch. It will be seen
85 that the perch has a double connection with the axle, the iron G at its forward end, at g', being perforated to pass onto the projection f², and the bar f of the fifth-wheel being held in the recess g. By reason of the location of the fifth-wheel and of the perch being directly
90 connected with the axle only through the iron G, which, as shown, connects with the axle at the bottom thereof, space is provided at I, Fig. 9, immediately in rear of the axle, wherein the spring D may be received when it is depressed in use.

The present improvement does not preclude
95 the use of an overhead brace leading from the top of the perch to a head-block when used upon the axle. The bar f' may be used without the addition of the bar f, in which case it
100 is at its end connected directly with the axle. The clip E need not necessarily be used to sup-

port the arm *e*, as that part may be in any suitable manner attached to the axle. I consider, however, the construction shown to be the most desirable mode of carrying out the improvement. The shackle J, Fig. 4, may or may not be used, as is desired, and the form of the arm *e*, as well as the mode of connecting the spring therewith, may be varied, providing the spring can be upheld, as described, at the side of the axle.

I claim—

1. The combination of the straight axle, the half-springs D D', one upon each side of the axle and adapted to be attached each at its upper end to the body, and the clips E, having arms *e*, projecting upwardly and laterally each toward the outer end of one of said half-springs, and the bolts *e'*, substantially as set forth.

2. The combination, with the axle and the springs, of the clips E, each having an arm projecting upward, outward, and downward, the upward and downward projections being perforated and the ends of the springs being situated between them and held by a bolt passing through said perforations, as set forth.

3. The combination, with the axle and perch, of one member of a fifth-wheel secured to the axle and having an oscillating engagement with the perch upon one side thereof and provided with a bar, *f'*, having a central pivotal

engagement with the perch upon the other side thereof, the perch being situated between said fifth-wheel member and said bar *f'*, substantially as set forth.

4. The combination, with the axle and perch, of the iron G, extending along and secured to the perch and having a way or groove, and the fifth-wheel member F, secured to the axle and provided with a curved bar situated between the perch and said part G and adapted to engage with said way, and provided also with the bar *f'*, situated out of the line of the perch and centrally perforated, the other parts also being correspondingly perforated to receive the king-bolt, substantially as set forth.

5. The combination, with the axle and perch, of the part F, having the bar *f'*, parallel with the axle, depressed, secured to the axle, as described, and provided with the bearing *f*², the part F having also the curved bar *f*, and the part G, secured to the perch, situated above the bar *f'*, pivoted upon the bearing *f*², and having an oscillating engagement with the bar *f* upon the under side of the same, substantially as set forth.

FRED. SCHELP, JR.

Witnesses:

C. D. MOODY,
J. W. HOKE.