No. 758,951. PATENTED MAY 3, 1904.

J. S. BARNETTE.

FIFTH WHEEL.

APPLICATION FILED MAY 15, 1903.

NO MODEL. 3 SHEETS—SHEET 1.

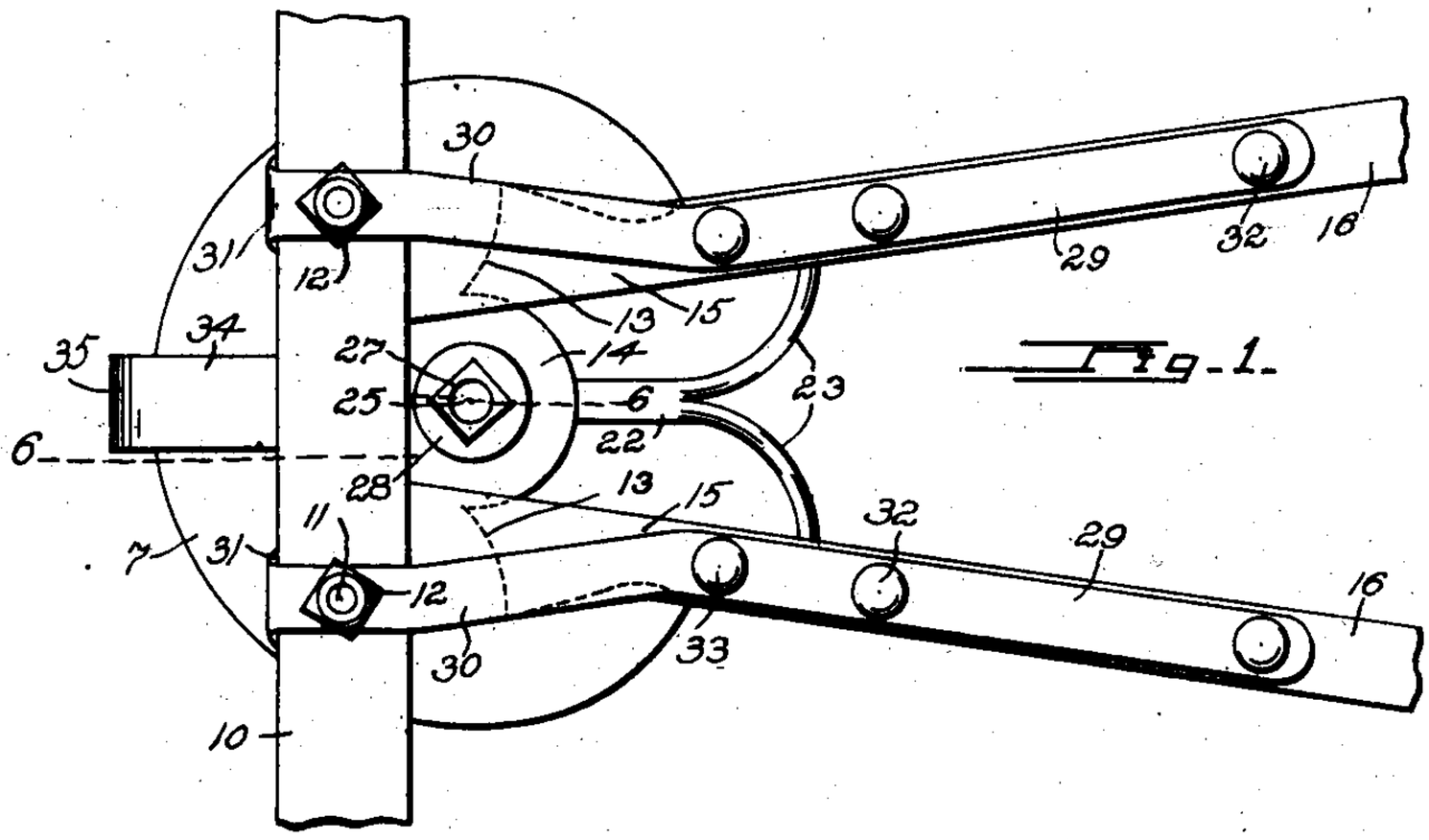

Fig. 1.

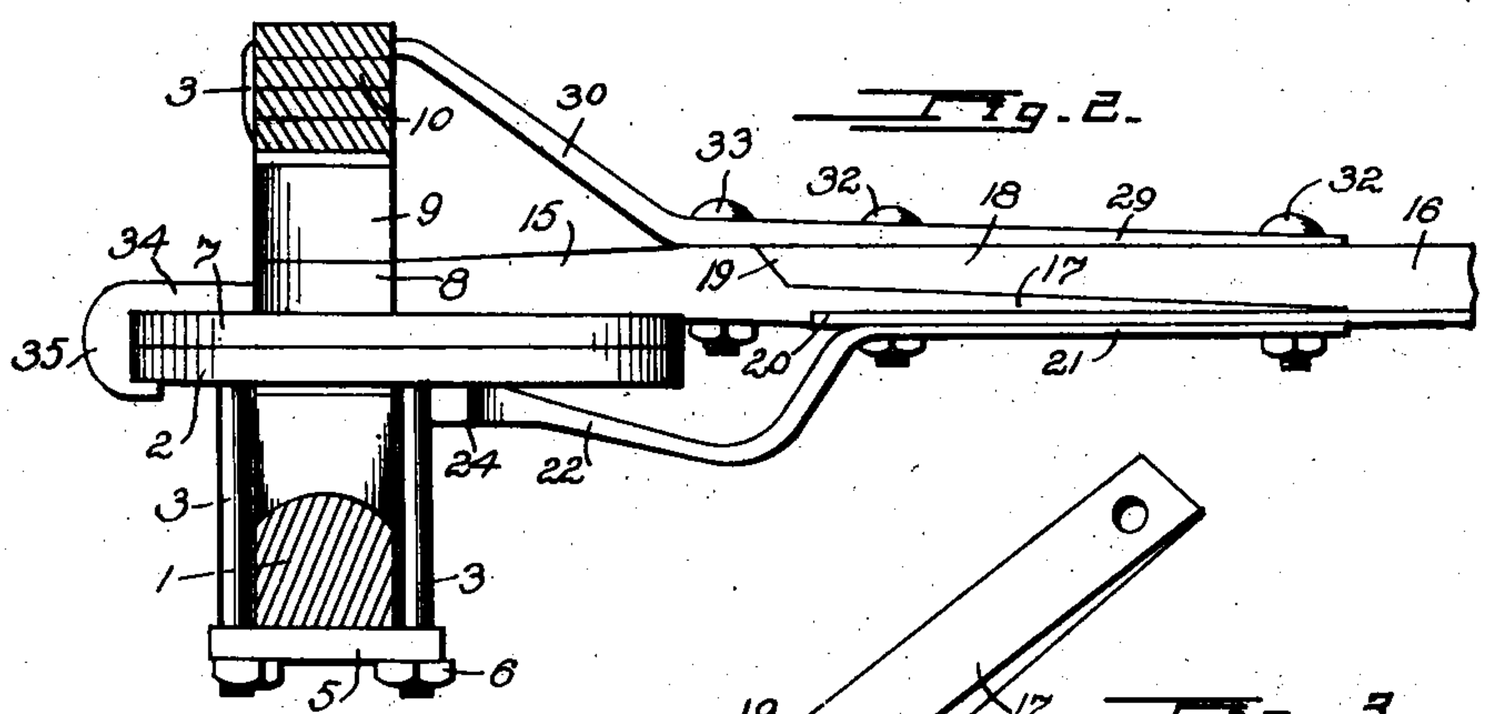

Fig. 2.

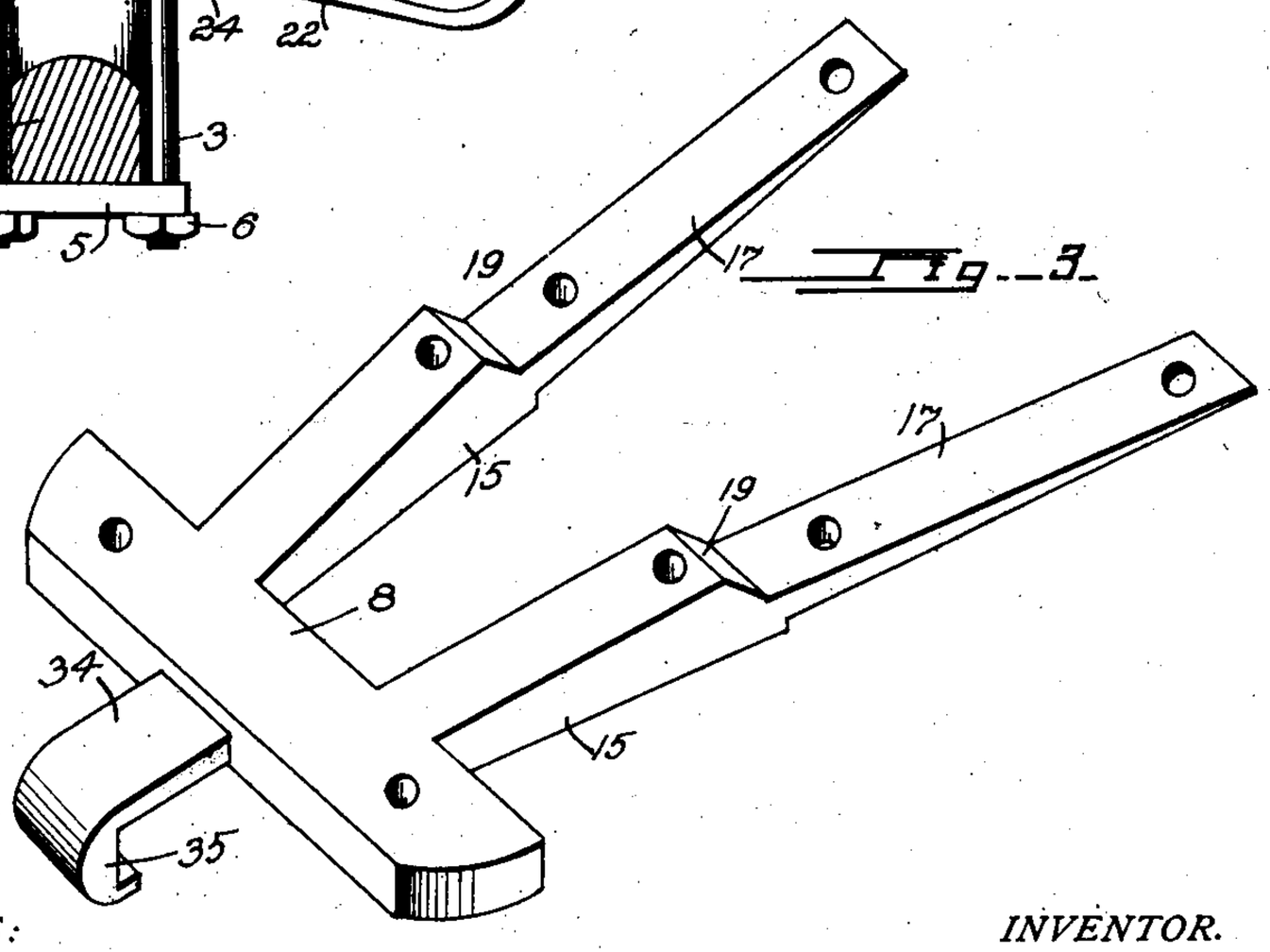

Fig. 3.

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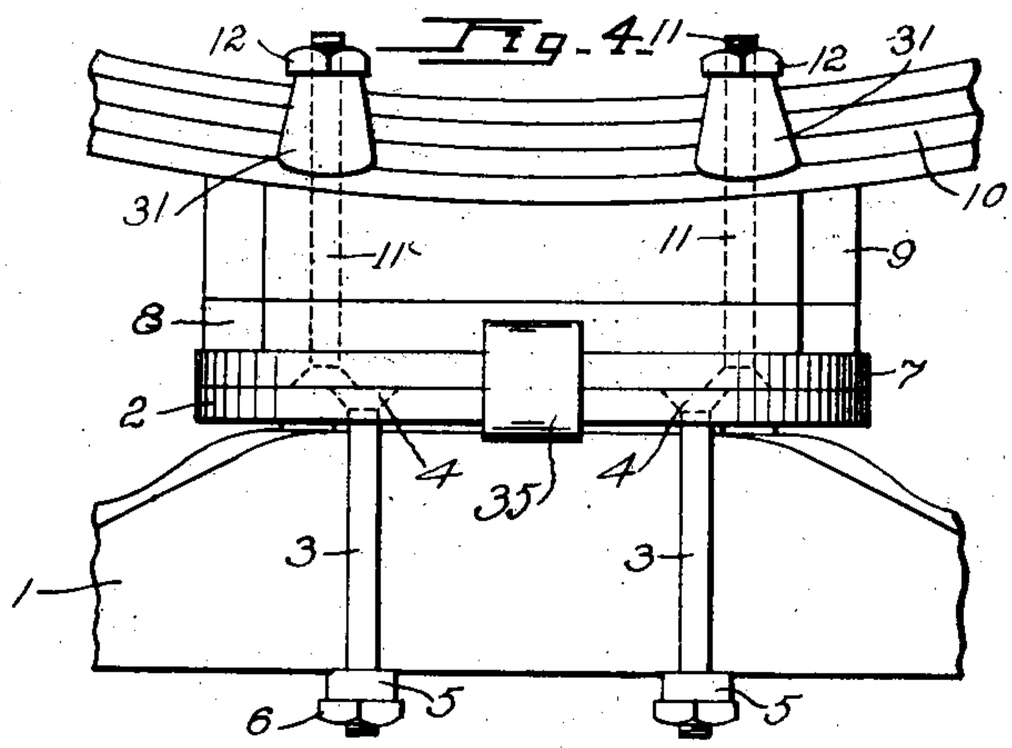
NO MODEL. 3 SHEETS—SHEET 2.

Fig. 4.



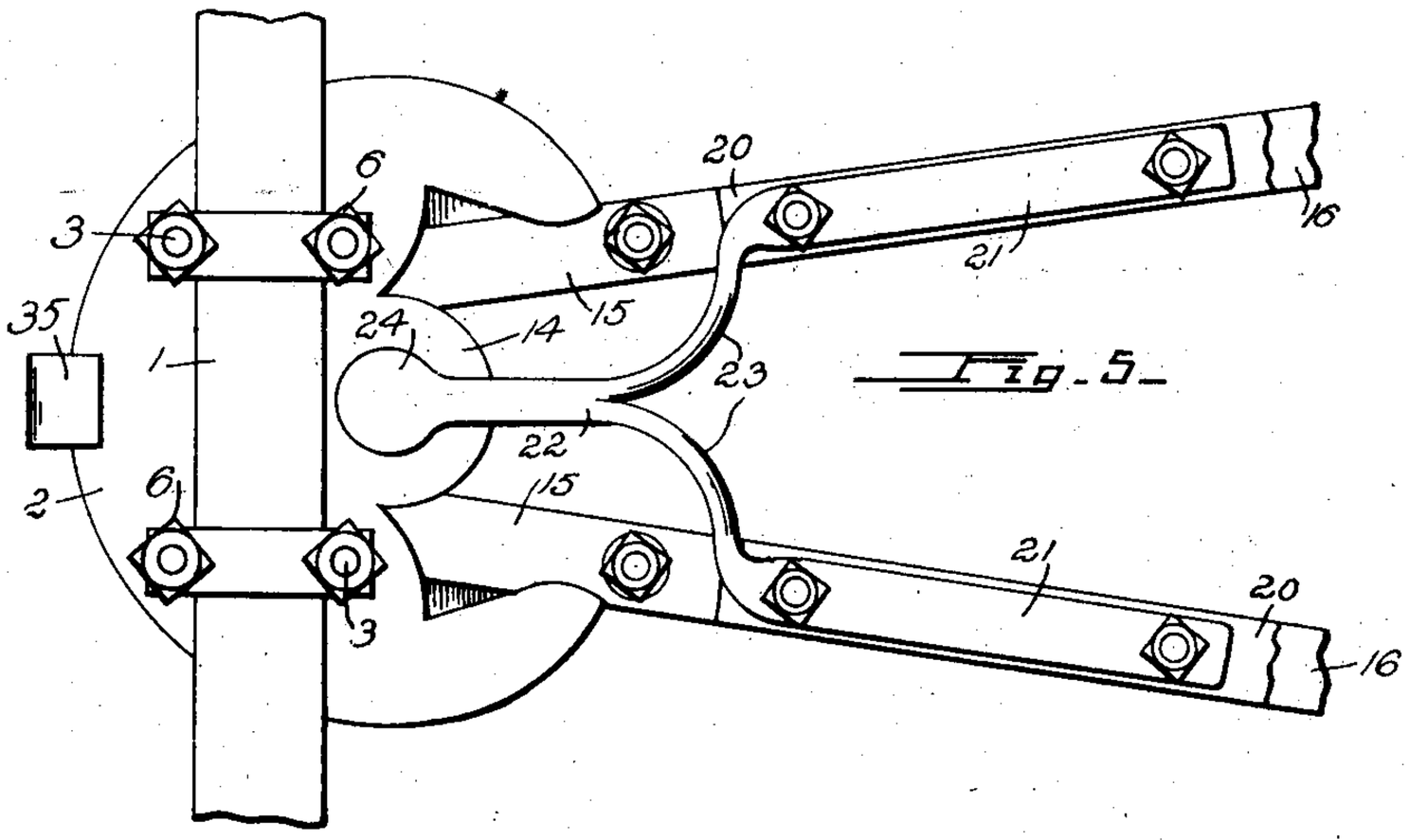


Fig. 5.

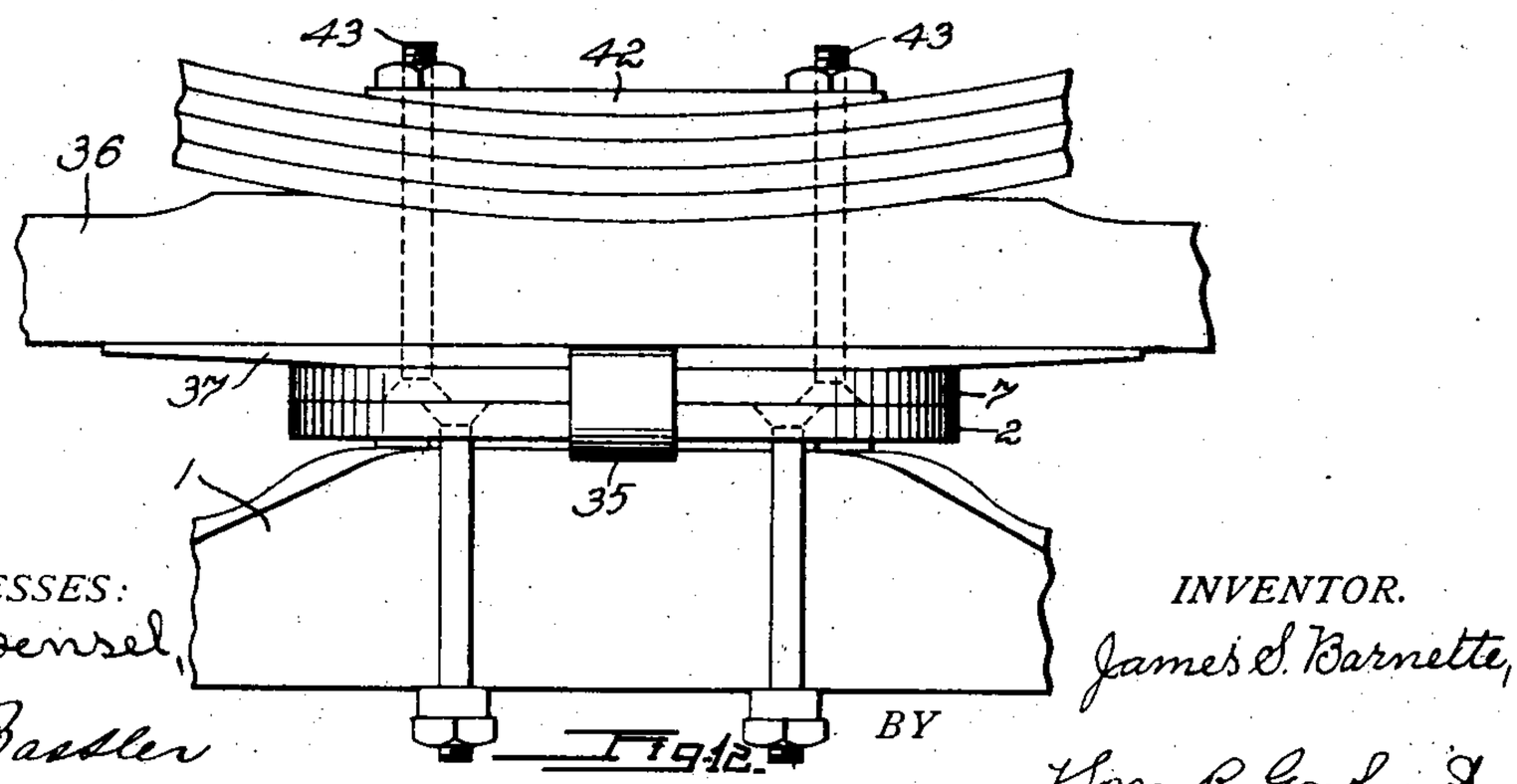


Fig. 12.

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No. 758,951. PATENTED MAY 3, 1904.

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FIFTH WHEEL.

APPLICATION FILED MAY 15, 1903.

NO MODEL. 3 SHEETS—SHEET 3.

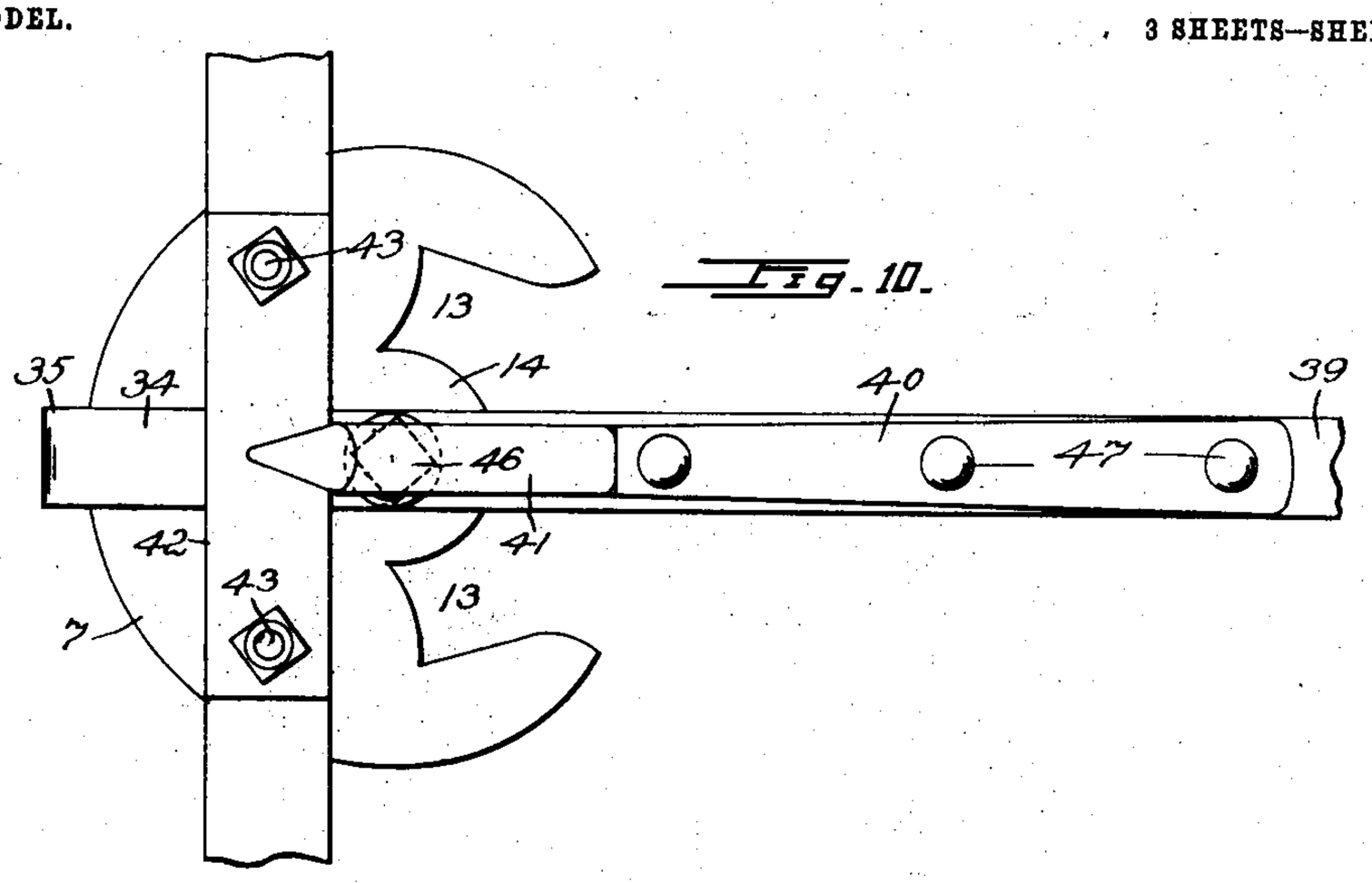

Fig. 10.

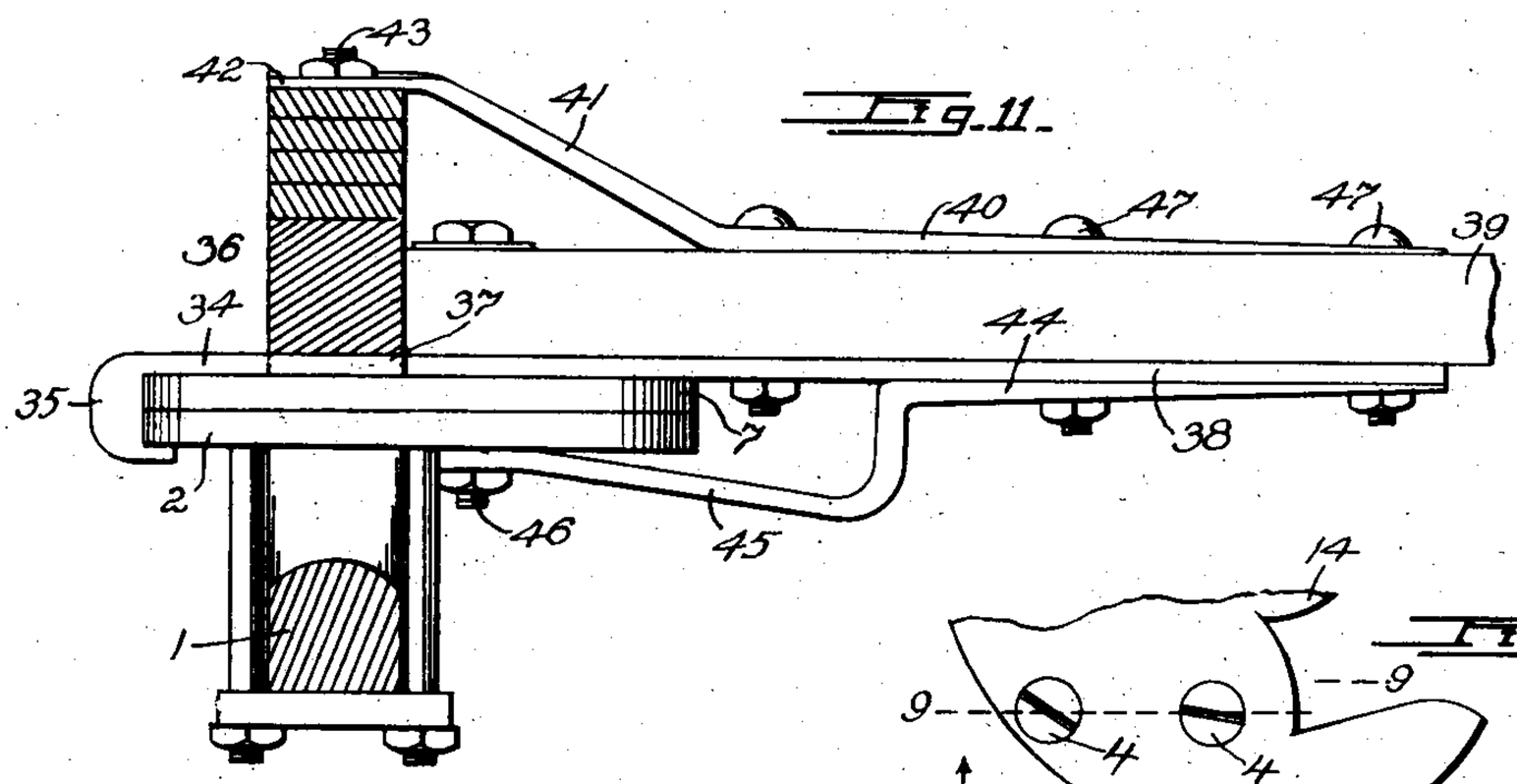

Fig. 11.

Fig. 8.

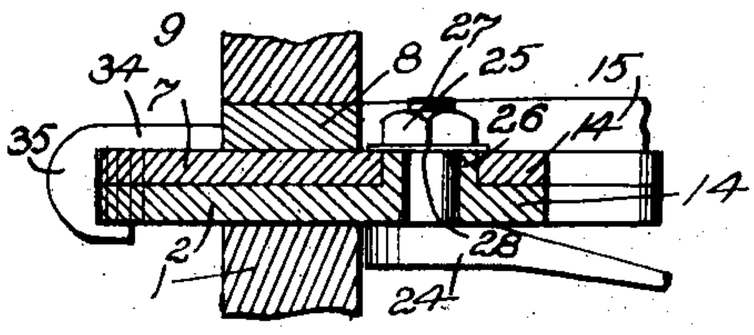

Fig. 6.

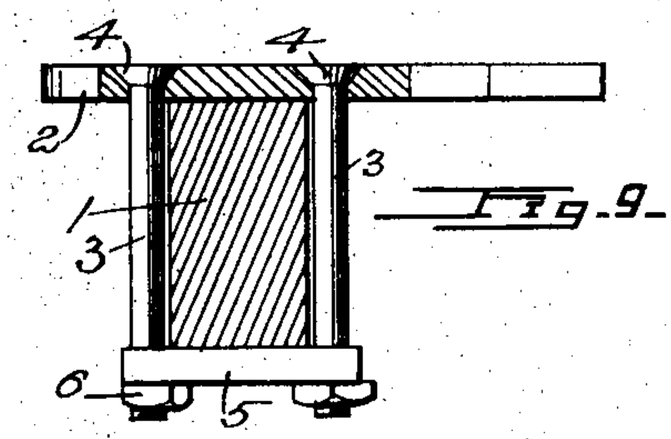

Fig. 9.

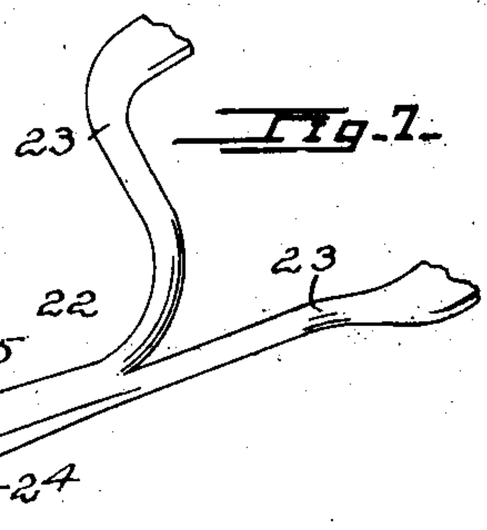

Fig. 7.

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No. 758,951. Patented May 3, 1904.

UNITED STATES PATENT OFFICE.

JAMES S. BARNETTE, OF LANCASTER, PENNSYLVANIA.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 758,951, dated May 3, 1904.

Application filed May 15, 1903. Serial No. 157,243. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. BARNETTE, a citizen of the United States, and a resident of Lancaster, in the county of Lancaster and State of Pennsylvania, (whose post-office address is Lancaster,) have invented certain Improvements in Fifth-Wheels, of which the following is a specification.

This invention relates to improvements in fifth-wheels for vehicles; and the object of the invention is to produce a strong, simply-constructed, and inexpensive fifth-wheel and in which the contact-surfaces thereof are reduced to the smallest area consistent with strength and durability.

The invention consists in the construction and combination of the various parts, as hereinafter fully described and then pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a top plan view of the fifth-wheel having a double perch with its connections; Fig. 2, a side elevation thereof; Fig. 3, a top perspective view of the front perch-irons and the perch-plate; Fig. 4, a front elevation; Fig. 5, a bottom plan view; Fig. 6, a section below the spring on broken line 6 6 of Fig. 1; Fig. 7, a top perspective view of the king-bolt and of the parts formed therewith; Fig. 8, a top plan view of a section of the lower segment of the fifth-wheel, and Fig. 9 a section on broken line 9 9 of Fig. 8. Fig. 10 is a top plan view showing the application of my invention to a vehicle having a single perch; Fig. 11, a side view thereof, and Fig. 12 a front elevation.

Similar numerals indicate like parts throughout the several views.

Referring to the details of the drawings, 1 indicates the axle, and 2 the lower segment or member of the fifth-wheel rigidly secured to the axle by rods 3, embracing axle 1 and having the heads 4 thereof countersunk in the top of said lower segment and the lower ends connected by a clip-plate 5, passing beneath the axle, and through the ends of which clip-plate rods 3 pass, the lower ends of rods 3 and the clip-plate being held in place by nuts 6.

7 refers to the upper segment or member of the fifth-wheel, on which rests a perch-plate 8, whereon is a spring-block 9, supporting the spring 10. Said upper segment 7, perch-plate 8, spring-block 9, and spring 10 are rigidly united by bolts 11 passing through those three bodies and having the heads thereof countersunk in the under side of upper segment 7, and said bolts 11 are secured above by nuts 12.

Both segments of the fifth-wheel are recesssed at the back, as shown at 13, Figs. 1 and 5. The bodies of the segments extend back of the perch-plate, and from the centers of said bodies lips 14 project rearwardly between recesses 13, the king-bolt, to be described, passing through lips 14.

In Figs. 1 to 9, both inclusive, is illustrated the application of my invention to a vehicle having a double perch. Perch-plate 8 is of metal and is formed with the perch-irons 15, connecting it with the perch-poles 16. The inner ends 17 of the perch-irons taper to a point, which tapered ends take under the reversely-tapered ends 18 of the perch-poles. The tapered ends of the perch-irons 15 form, with the bodies thereof, sloping shoulders 19, and the adjacent ends of perch-poles 16 abut against said shoulders. Said perch-poles and tapered ends of the perch-irons are connected by splice-irons 20, mortised into the under sides of the tapered ends 17 of the perch-irons and taking under the adjacent parts of said perch-poles. Beneath splice-irons 20 are located the horizontal arms 21 of the spider 22, supporting the king-bolt. From the inner ends of said arms 21 are extensions 23, that curve inwardly and downwardly and are united with a head 24, with which is formed the king-bolt 25.

In lip 14 of the upper segment of the fifth-wheel is an opening, and in the corresponding lip of the lower segment of said fifth-wheel is an opening ranging with that in said upper segment, and around the opening in the lip of the lower segment is an annular flange 26, that forms a tube engaging the opening in said upper segment. King-bolt 25 passes up through the opening in lip 14 of the lower

segment of the fifth-wheel and through the tube 26 and is secured above by a nut 27, resting on a washer 28.

Above the members of the perch are horizontal plates 29, uniting perch-irons 15 and perch-poles 16, and on the forward ends of these plates are braccs 30, that extend upward to and rest on the top of spring 10, and on the front ends of said braces 30 are depending lips 31, which embrace and bear against the front of said spring. The front ends of said braces 30 have bolt-holes through which pass bolts 11, whereby said braces are secured in place and prevent forward or backward tilting of the spring on the axle and bind the members together.

The tapered ends of the perch-irons and of the perch-poles, the horizontal arms 21 of the spider, the splice-irons 20, and the horizontal plates 29 are all bound together by bolts 32 passing through all of those parts, in addition to which the forward ends of horizontal plates 29 are secured to perch-irons 15 in front of the tapered ends 18 of the perch-poles by bolts 33.

On the front of perch-plate 8 is a forwardly-extending arm 34, having thereon a hook 35, that embraces the edges of both segments of the fifth-wheel, aiding in maintaining steadiness of movement of said upper segment of the fifth-wheel.

In Figs. 10, 11, and 12 is represented the application of my invention to a vehicle having a single perch-pole, the fifth-wheel segments in this construction being the same as those previously shown and described. In this construction 36 represents a head-block; 37, the perch-plate; 38, a single perch-iron formed with the perch-plate resting on the upper segment of the fifth-wheel, and 39 the single perch-pole. As in the first-described construction, a forwardly-extending arm 34, with a hook 35, is formed with perch-plate 37. There is a horizontal plate 40 on the perch, on the forward end of which is a brace 41, extending upward to the top of the spring, and on the front of said brace is a plate 42, that rests on the top of said spring, where it is secured by the same bolts 43 that secure the spring to head-block 36. Beneath the perch-iron is a single plate 44, and on the front end thereof is a forwardly and downwardly projecting extension 45, having an opening in its front end, through which, the perch-iron, the perch, and the rearwardly-extending lips 14 of the lower and upper segments of the fifth-wheel passes the king-bolt 46. If preferable, the king-bolt may be formed with the front end of arm 45, as in the first-described construction. Plate 40 on the perch, the perch, the perch-iron, and the plate 44 are all secured together by the same bolts 47.

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

1. The combination, in a fifth-wheel, of the lower segment thereof secured on the axle, the upper segment of the fifth-wheel resting on said lower segment, projections of both said segments extending rearwardly of the axle, a perch-plate on the upper fifth-wheel segment, a perch-iron connected with the perch-plate, a plate connected with the perch-plate and having an extension, and a king-bolt supported by said plate extension and passing upward through said rearwardly-extending projections of the segments of the fifth-wheel.

2. The combination, in a fifth-wheel, of a lower segment thereof secured on the axle, the upper segment of the fifth-wheel resting on said lower segment, projections of both said segments extending rearwardly of the axle, a perch-plate on the upper fifth-wheel segment, a perch-iron connected with the perch-plate, a plate connected with the perch-plate and having an extension, and a king-bolt formed with said plate extension and passing upward through said rearwardly-extending projections of the segments of the fifth-wheel.

3. The combination, in a fifth-wheel, of the lower segment thereof secured on the axle, the upper segment of the fifth-wheel resting on said lower segment, projections of both said segments extending rearwardly of the axle, a perch-plate on the upper fifth-wheel segment, a plurality of perch-irons connected with the perch-plate, a spider having an arm connected with each of the perch-irons, and a king-bolt supported by the head of the spider and passing upward through said rearwardly-extending projections of the segments of the fifth-wheel.

4. The combination, in a fifth-wheel, of the lower segment thereof secured on the axle, the upper section of the fifth-wheel resting on said lower segment, projections of both said segments extending rearwardly of the axle, a perch-plate on the upper fifth-wheel segment, a hook formed on the front of the perch-plate and embracing the edges of the segments of the fifth-wheel, a plurality of perch-irons connected with the perch-plate, a spider having an arm connected with each of the perch-irons, and a king-bolt formed with the head of the spider and passing upward through said rearwardly-extending projections of the segments of the fifth-wheel.

5. The combination, in a fifth-wheel, of the lower segment thereof secured on the axle, the upper segment of the fifth-wheel resting on said lower segment, projections of both said segments extending rearwardly of the axle, openings in said rearward projections, a flange around the opening in the projection of the lower segment and forming a tube extending into the opening in the projection of

the upper segment, a perch-plate on the upper fifth-wheel segment, a hook on the front of the perch-plate and embracing the edges of the segments of the fifth-wheel, a plurality of perch-irons formed with the perch-plate, a spider having an arm connected with each of the perch-irons, a spring, a king-bolt formed with the head of the spider and passing upward through said tube, and braces extending upward from the perches and passing over and embracing the front of the spring.

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