

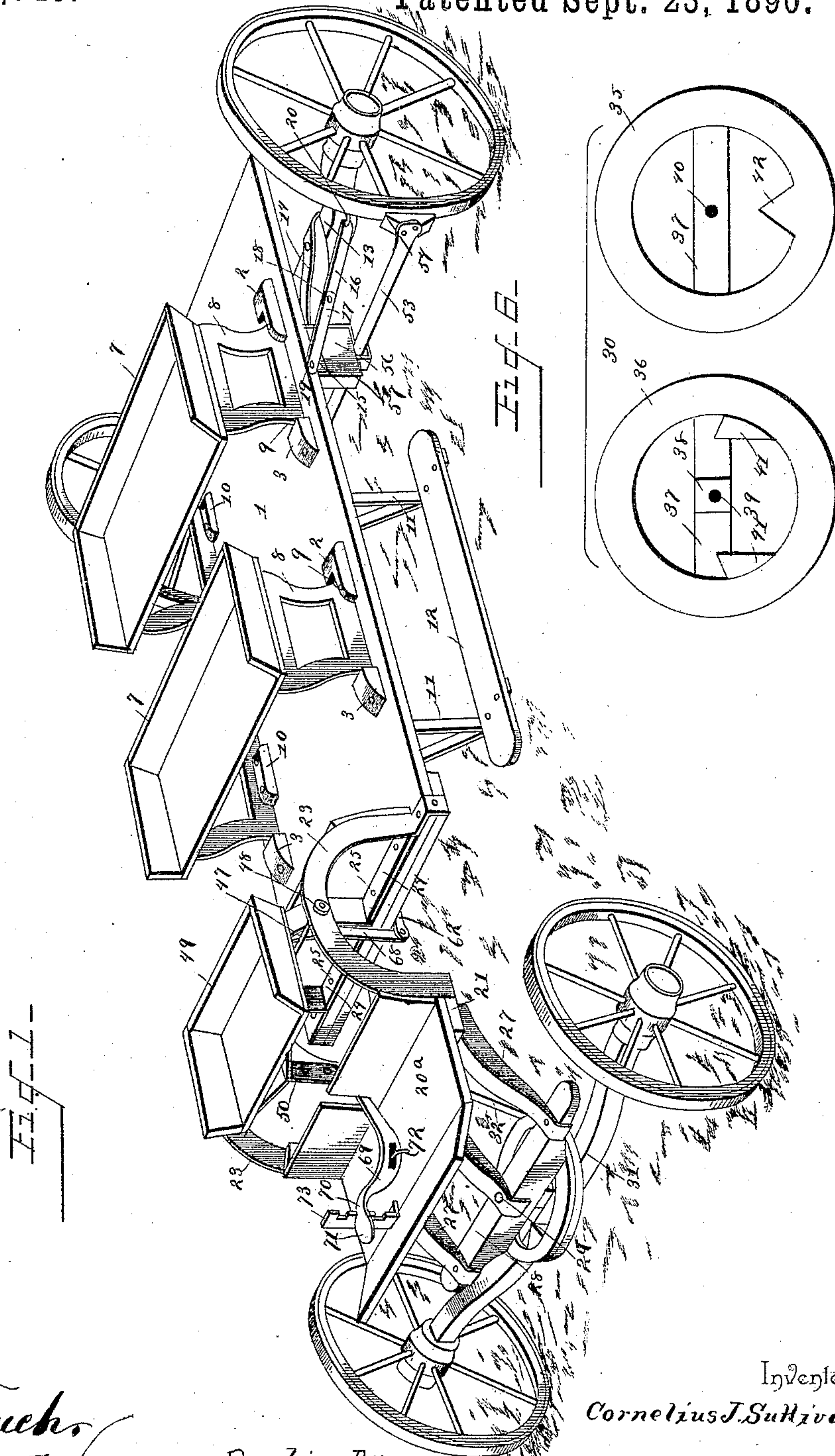
(No Model.)

2 Sheets—Sheet 1.

C. J. SULLIVAN.
VEHICLE.

No. 436,949.

Patented Sept. 23, 1890.



Witnesses,

Geo. E. Frick.

W. L. Sullivan.

Inventor

Cornelius J. Sullivan

By his Attorneys,

C. A. Snow & Co.

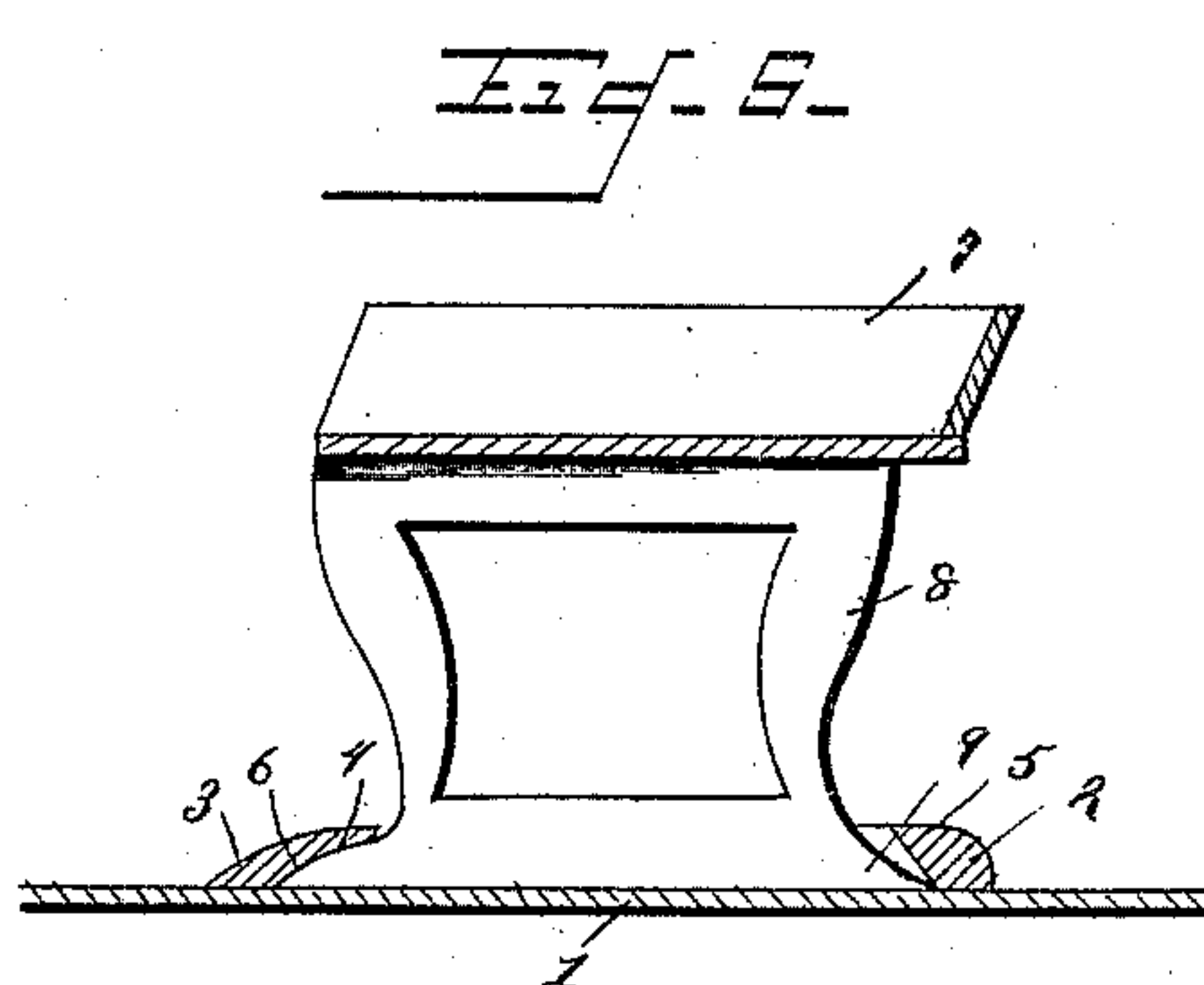
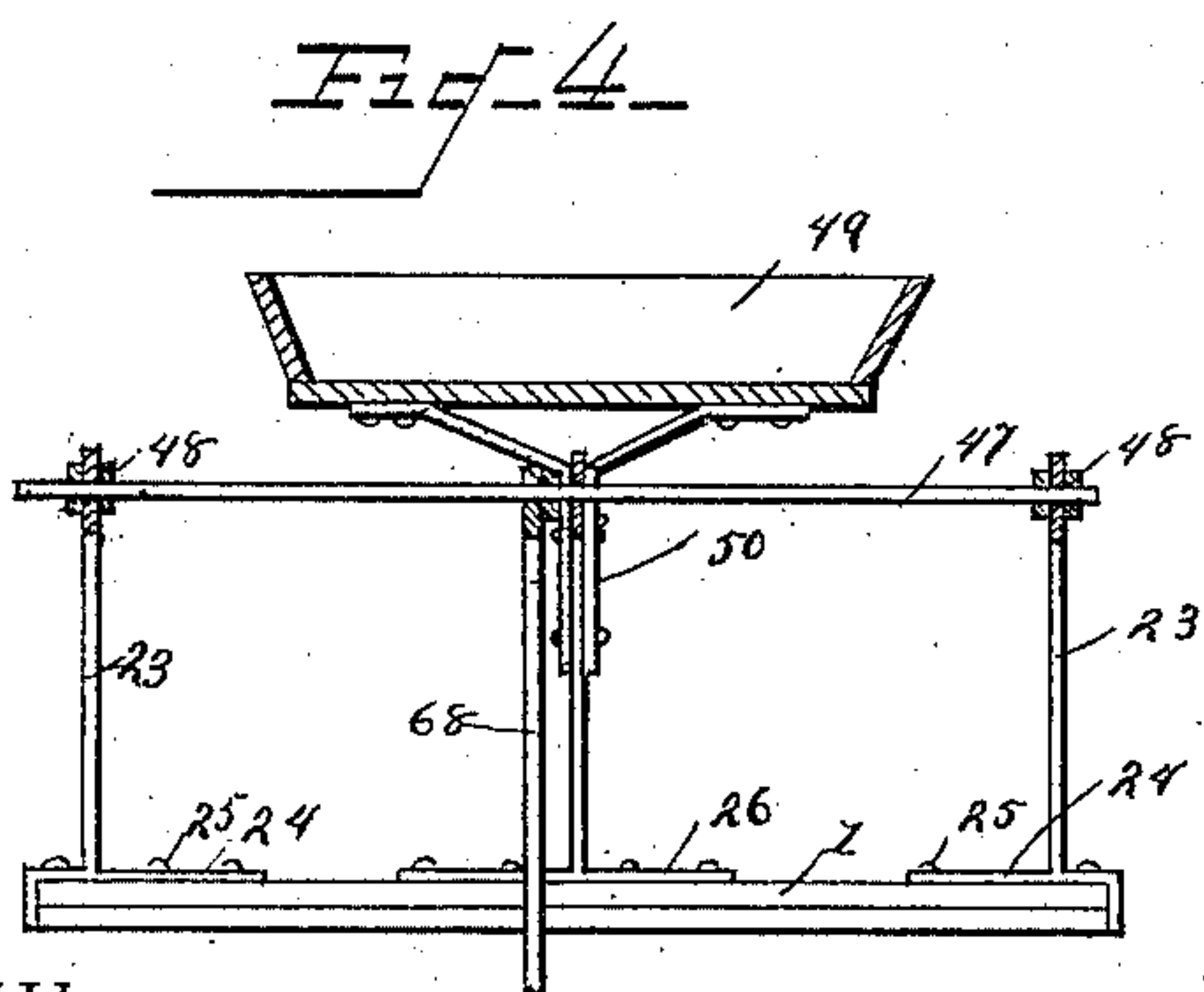
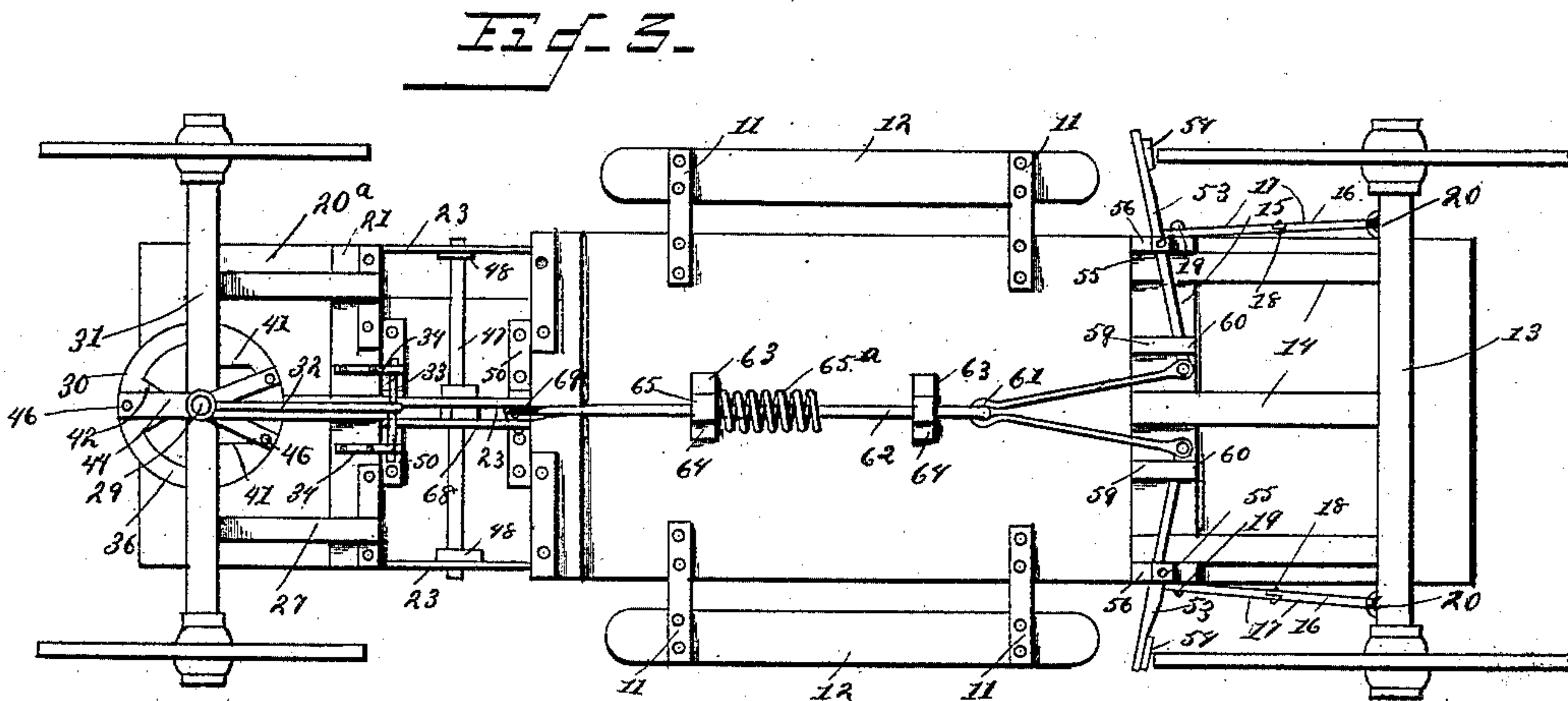
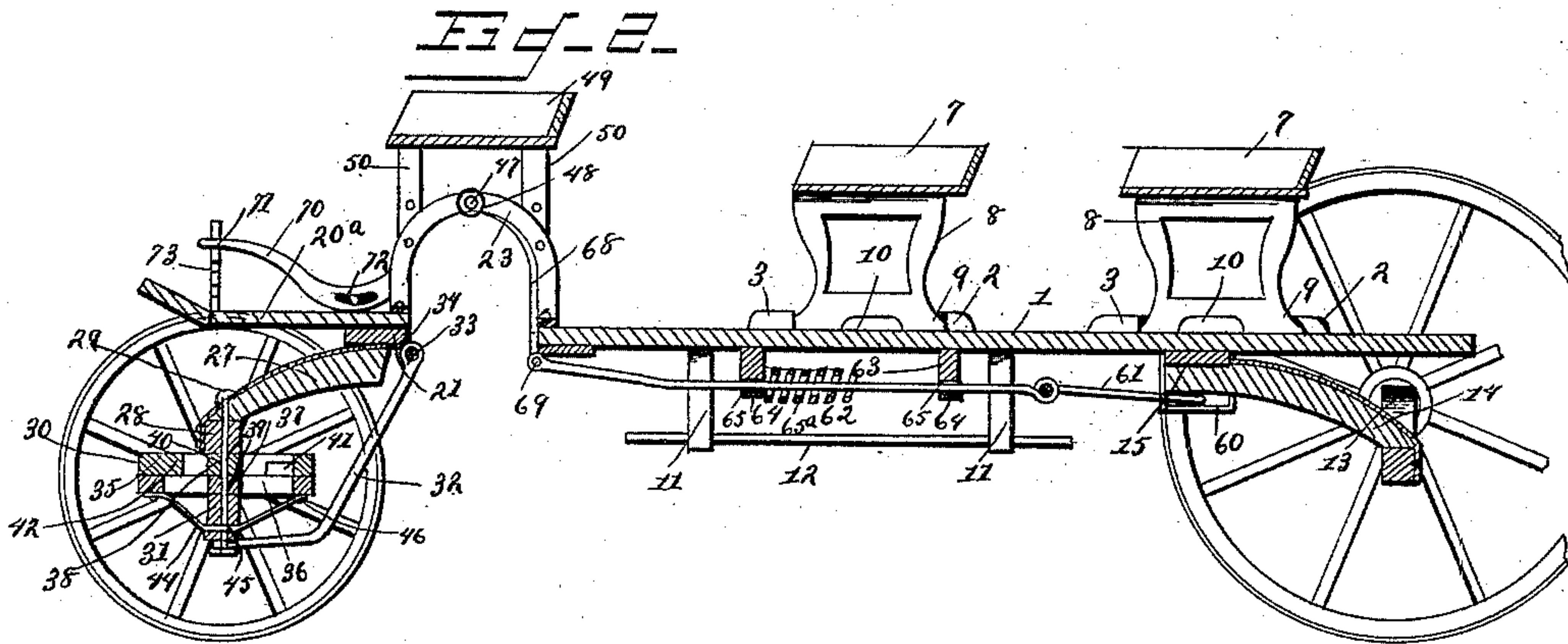
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2 Sheets—Sheet 2.

C. J. SULLIVAN.
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Witnesses:

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UNITED STATES PATENT OFFICE.

CORNELIUS JOHN SULLIVAN, OF BAR HARBOR, MAINE.

VEHICLE.

SPECIFICATION forming part of Letters Patent No. 436,949, dated September 23, 1890.

Application filed August 16, 1889. Renewed August 14, 1890. Serial No. 362,016. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS JOHN SULLIVAN, a citizen of the United States, residing at Bar Harbor, in the county of Hancock and State of Maine, have invented a new and useful Vehicle, of which the following is a specification.

This invention has relation to that class of passenger-vehicles known as "buckboards;" and among the objects in view are to provide a vehicle of the above class capable of accommodating two passenger-seats, each of which is reversible; to permit of the vertical resiliency of the body of the vehicle upon the axles without binding the usual inclined brace-rods connecting the axle and body; to improve the brake mechanism; to provide a driver's seat and platform and means for connecting the same with the buckboard, and this in such a manner as to permit of short turning of the vehicle, and to improve the fifth-wheel.

With these general objects in view the invention consists in certain novel features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of the vehicle constructed in accordance with my invention. Fig. 2 is a longitudinal section. Fig. 3 is a bottom view. Fig. 4 is a transverse section taken through the driver's seat. Fig. 5 is a section of the buckboard and one of the seat-standards. Fig. 6 are details of the inner faces of the two sections forming the fifth wheel.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents the usual platform or board, and near each of its sides are provided cast-metal sockets 2 and 3, said sockets being arranged in pairs and the pair at one side aligning with that of the opposite side. The socket 2 is of L shape in plan, and the inner edges of the L are undercut or beveled, as at 5. The companion socket 3 is provided with a recess 4, the upper wall of which is beveled or undercut, as at 6.

7 represents the passenger-seats, which are supported at each side by the usual seat-standards 8, the opposite ends of which are inclined or reduced, forming feet 9, the distance between the feet of each standard be-

ing such that when one pair of feet are inserted in the sockets of the castings 3, the opposite pair may be swung by the L end of the opposite L-shaped casting 2, and any further movement or jolting of the buckboard serves to distribute a portion of the surface of each of the feet in their respective sockets. By this it will be seen that while it is impossible for any accidental displacement of the seats, yet they may be readily withdrawn from their sockets and reversed, so that they face in either direction desired. It will also be noticed that the front edge of the front seat is substantially flush with the front edges of its two standards, while the front edge of the rear seat slightly overlaps the corresponding edges of its standards, the latter being of the usual construction. By the construction first mentioned the front seat, when turned toward or facing the rear seat, will be at such a distance from the rear seat as not to effect contact of the knees of the occupants of the front seat with the knees of the occupants of the rear seat.

10 represent small stationary cleats or stops, that are secured to the buck-board and at the inner side of each of the seat-standards, said stops aiding in the rigidity of said standard within the sockets and preventing any lateral play or wobbling.

Suitable hangers 11 depend from the under surface of the board 1 at its opposite sides and support a longitudinally-arranged step 12.

13 represents the rear axle, which is secured to the board by means of the usual spring-arms 14, the inner ends of which are bolted to a transverse bolster 15, secured to the under surface of the board.

16 represents the usual lateral inclined brace arms or rods which connect the sides of the platform with the rear axle near its bearings. For the purpose of preventing the usual twisting, binding, and consequent loosening of this rod, I form the same of opposite sections 17, pivoting the sections together at their inner ends, as at 18, and bolting the upper end of one section to the side of the board, as at 19, and connecting the lower section to an eye 20, projecting from the axle 13. These braces serve all the purposes and functions of the usual rigid brace, and yet permit of the resilient movement of the buckboard without

the heretofore consequent binding of the rods or braces at their bearings and early loosening of the same.

20^a represents the driver's platform or foot-rest, upon the under surface of which and at its rear end is secured the usual supporting-bolster 21. Opposite U-shaped braces connect the bolster 23 at the front end of the buckboard with the bolster 21 of the platform 20^a at each side thereof and also at the center. The braces at the sides have their ends bent inwardly, as at 24, and bolted, as at 25, and the central brace has its ends bent and connected to the upper surface of the opposite bolsters, and is also braced by oppositely-disposed flange-plates 26. From the bolster 21 there projects forwardly a series of three supporting-arms 27, the outer ends of which are bolted to the usual head-block 28. A king-bolt 29 passes through the central one of the spring-arms and through the fifth-wheel 30 and front axle 31.

32 represents an L-shaped traveler, the front end of which receives the king-bolt, and the rear end of which terminates in an eye which travels on a traveling bar 33, mounted in brackets 34, projecting rearwardly from the rear under surface of the bolster 21.

The fifth-wheel comprises two opposite circular sections 35 and 36, each provided with a central transverse cross-bar 37, the lower section 36 having a central lug 38, perforated, as at 39, for the reception of the king-bolt and registering with a similar perforation 40, formed in the transverse bar of the upper section 35. The transverse bar of this latter section is offset from the lower face of the annular section, and the central lug bears upon the offset bar, thus forming a point of pivotal contact between the two sections. The lower section 36 is also provided with a pair of stop-lugs 41 upon its inner periphery, which come in contact with a single stop-lug 42, formed upon the inner periphery of the upper section 35. By this construction the front axle may swing to either side until in line with the vehicle and will be stopped by the contact of the lugs within the fifth-wheel. A Y-shaped clip 44 has its three terminals bolted, as at 46, to the lower section 36 of the fifth-wheel, and has a central opening 45, through which passes the king-bolt, said Y-clip embracing the lower edge of the axle and serving to brace the fifth-wheel and secure the same in rigid connection with the axle.

A brace-rod 47 connects the series of U-shaped braces connecting the driver's platform with the buckboard, said rod being also provided with nuts 48, threaded thereon and bearing at each side of the central brace upon the inner side of the two outer braces.

49 represents a driver's seat. The same is supported upon the central brace by means of a pair of oppositely-arranged Y-shaped standards 50, each of which is formed of a pair of spring-strips bolted together at their shanks and to the support and beyond the

points at which they are connected. The strips diverge and are bolted to the under surface of the driver's seat.

53 represents opposite brake-arms carrying shoes 54, and pivoted by a bolt 55 upon a pair of oppositely-arranged blocks 56, secured to the outer ends of the rear bolster. Metal straps 57 embrace the blocks and serve to form openings for the passage and movement of the levers. Intermediate the two blocks mentioned there are secured to the bolster a pair of blocks 59, embraced by metal straps 60, which form slots between themselves and the blocks, through which pass the inner ends of the brake-arms, to which brake-arms are connected the terminals of a V-shaped link 61. In the angle of the link 61 is loosely connected a connecting rod or bar 62, mounted for reciprocation upon guide-blocks 63, embraced by metal straps 64, offset, as at 65, to form guide-eyes 41. A coiled spring 65^a is mounted on the rod intermediate the guide-blocks, and has one terminal secured to the block and its opposite terminal bearing against the inner face of the forward block, thus serving to force the rod to the rear and the brake-arms to such a position that the brakes will be normally off. A curved lever 68 is mounted pivotally upon the brace-rod that connects the U-shaped braces, the rear end of said lever being pivotally connected to the forward end of the connecting brake-rod, as at 69, and at its forward end to a foot-lever 70, as at 71, said foot-lever being pivoted, as at 72, to the floor of the driver's platform, and so mounted thereon as to be capable of being locked under a notched locking-standard 73, extending upwardly from the driver's platform.

Having described my invention, what I claim is—

1. In a vehicle of the class described, the combination, with a seat, of a pair of oppositely-arranged Y-shaped spring-standards for supporting the same, each of the standards consisting of opposite strips bolted together at their lower ends to form a shank and diverging toward their extremities and secured to the seat, substantially as specified.

2. The combination, with one of the U-braces for connecting the buckboard and driver's platform, of a pair of Y-shaped spring-metal standards arranged in line with each other and at the center of the seat, each standard consisting of a pair of strips bolted together near their lower ends to form a shank and diverging after they leave their points of connection and having its lower end secured to the brace, and a driver's seat mounted on the arms, substantially as specified.

3. The combination, with the board, of opposite pairs of recessed undercut sockets, the recesses tending inwardly, and seat-standards terminating in opposite outwardly-projecting feet and adapted to be inserted in the sockets, substantially as specified.

4. The combination, with the board 1, of

transversely-opposite pairs of L-shaped undercut sockets and transversely-opposite pairs of undercut recessed sockets and of opposite seat-standards terminating in opposite feet adapted to fit the sockets and at a distance apart agreeing with that between the adjacent edges of each pair of longitudinally-opposite sockets, substantially as specified.

5 The combination, with the buckboard and its rear axle, of opposite braces connecting the same and formed in sections, the ends of which are loosely connected with each other, substantially as specified.

15 6. The combination, with the front platform and its supporting-bolster, of a fifth-wheel mounted under the bolster, an axle connected with the fifth-wheel by means of a king-bolt, and an L-shaped traveler connected to the lower end of the king-bolt and having its opposite end mounted for travel on a traveling rod connected to the rear end of the platform, substantially as specified.

25 7. The combination, with the herein-described vehicle, having the front bolster provided with the upper annular section, of a

fifth-wheel having an offset transverse bar centrally perforated and an inwardly-disposed stop, a front axle carrying an opposite annular section of the fifth-wheel and having a central bearing-lug projecting above the plane of the section and bearing on the transverse bar of the opposite section and having an aligning perforation, stops also projecting from the lower annular section and adapted to come against the stop of the opposite section, and a king-bolt passing through the perforations, substantially as specified. 30 35

8. In combination with the fifth-wheel, the traveler 32, connected to the lower end of the king-bolt of the fifth-wheel below the latter, and the traveling rod 33, connected to the wagon and having the traveler mounted thereon, as set forth. 40

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses. 45

CORNELIUS JOHN SULLIVAN.

Witnesses:

JOHN A. PETERS, Jr.,

J. E. BUNKER, Jr.