(No Model.) 4 Sheets—Sheet 1.

O. J. RATLIFF.

ADVERTISING VEHICLE.

No. 453,209. Patented June 2, 1891.

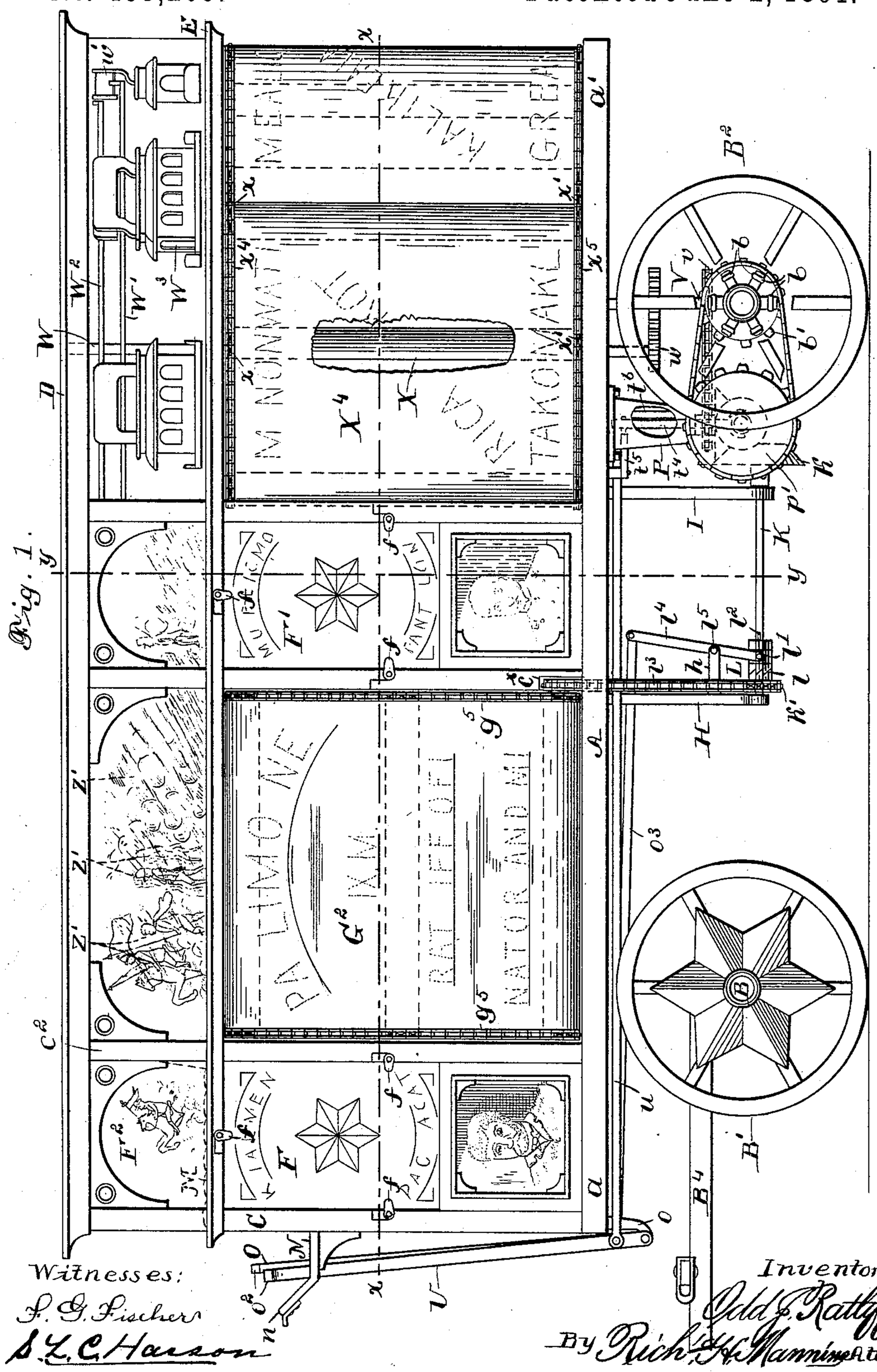

Fig. 1.

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Inventor
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By Richd. H. Mannix Atty

(No Model.)

4 Sheets—Sheet 2.

O. J. RATLIFF.

ADVERTISING VEHICLE.

No. 453,209. Patented June 2, 1891.

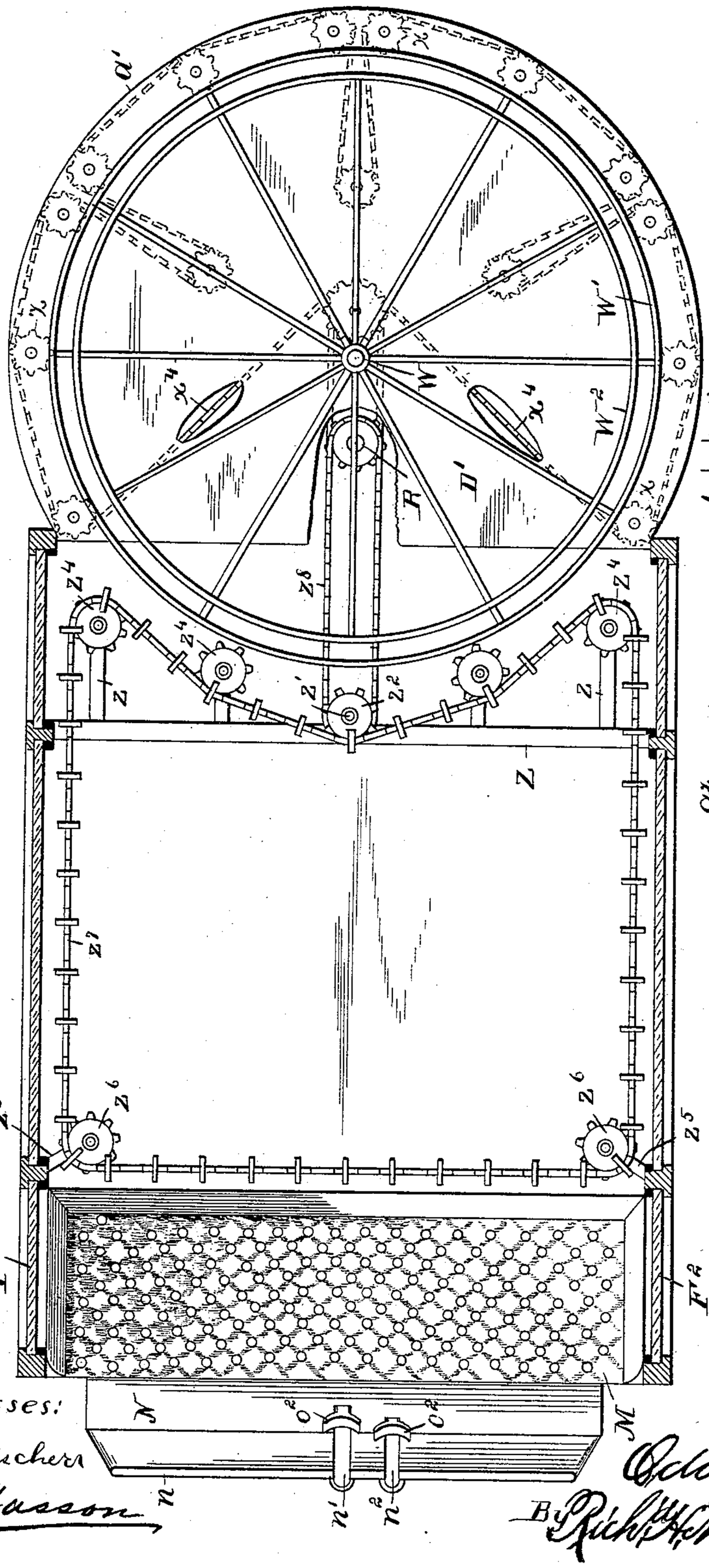

Fig. 2.

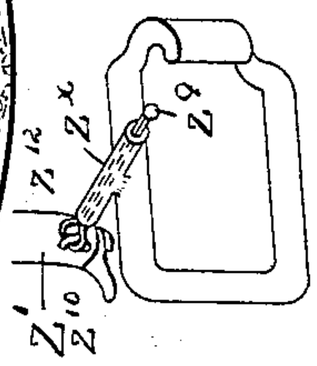

Fig. 5.

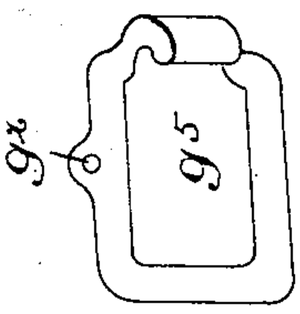

Fig. 6.

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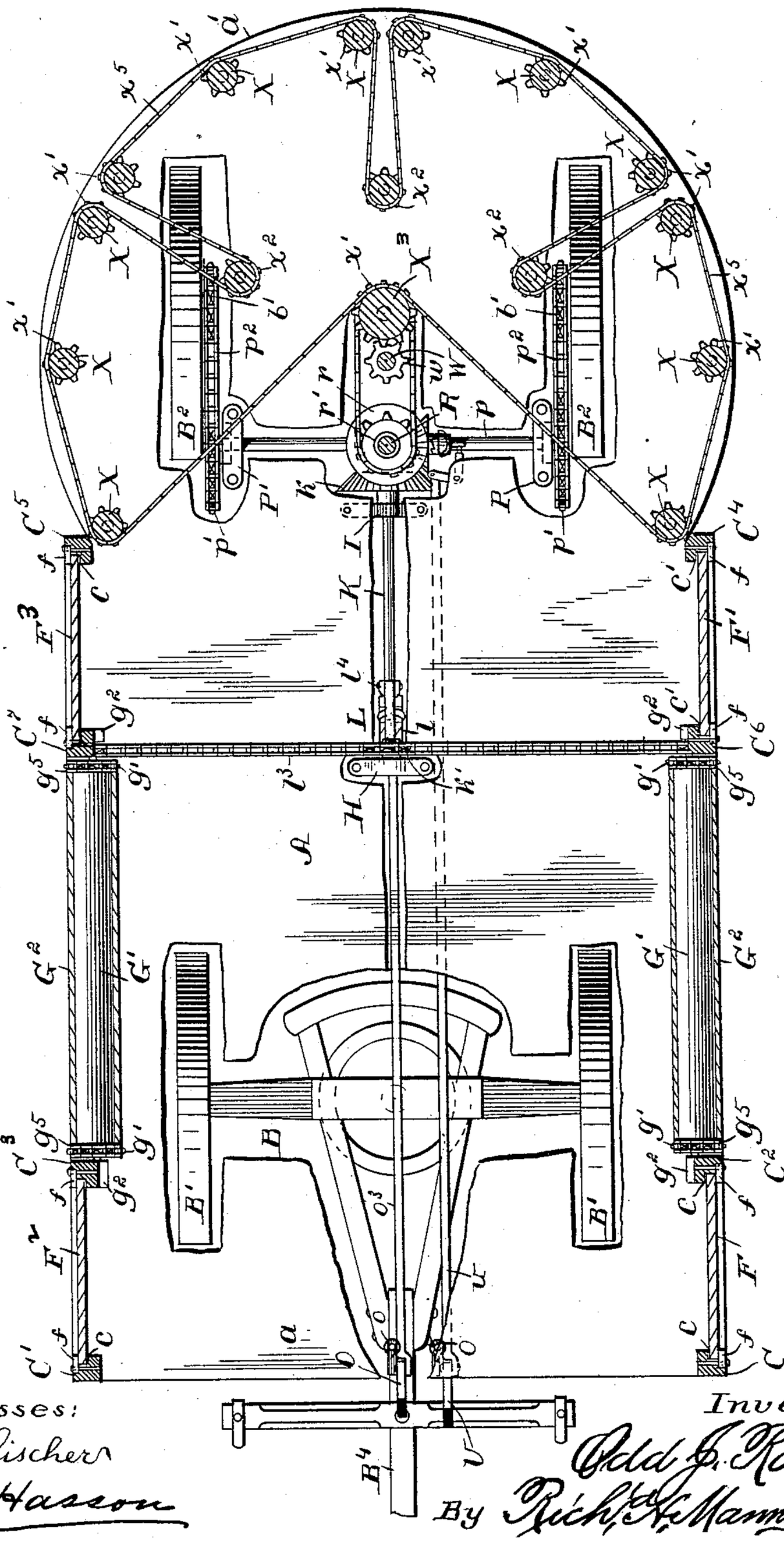
(No Model.) 4 Sheets—Sheet 3.

O. J. RATLIFF.

ADVERTISING VEHICLE.

No. 453,209. Patented June 2, 1891.

Fig. 3.



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(No Model.) 4 Sheets—Sheet 4.

O. J. RATLIFF.

ADVERTISING VEHICLE.

No. 453,209. Patented June 2, 1891.

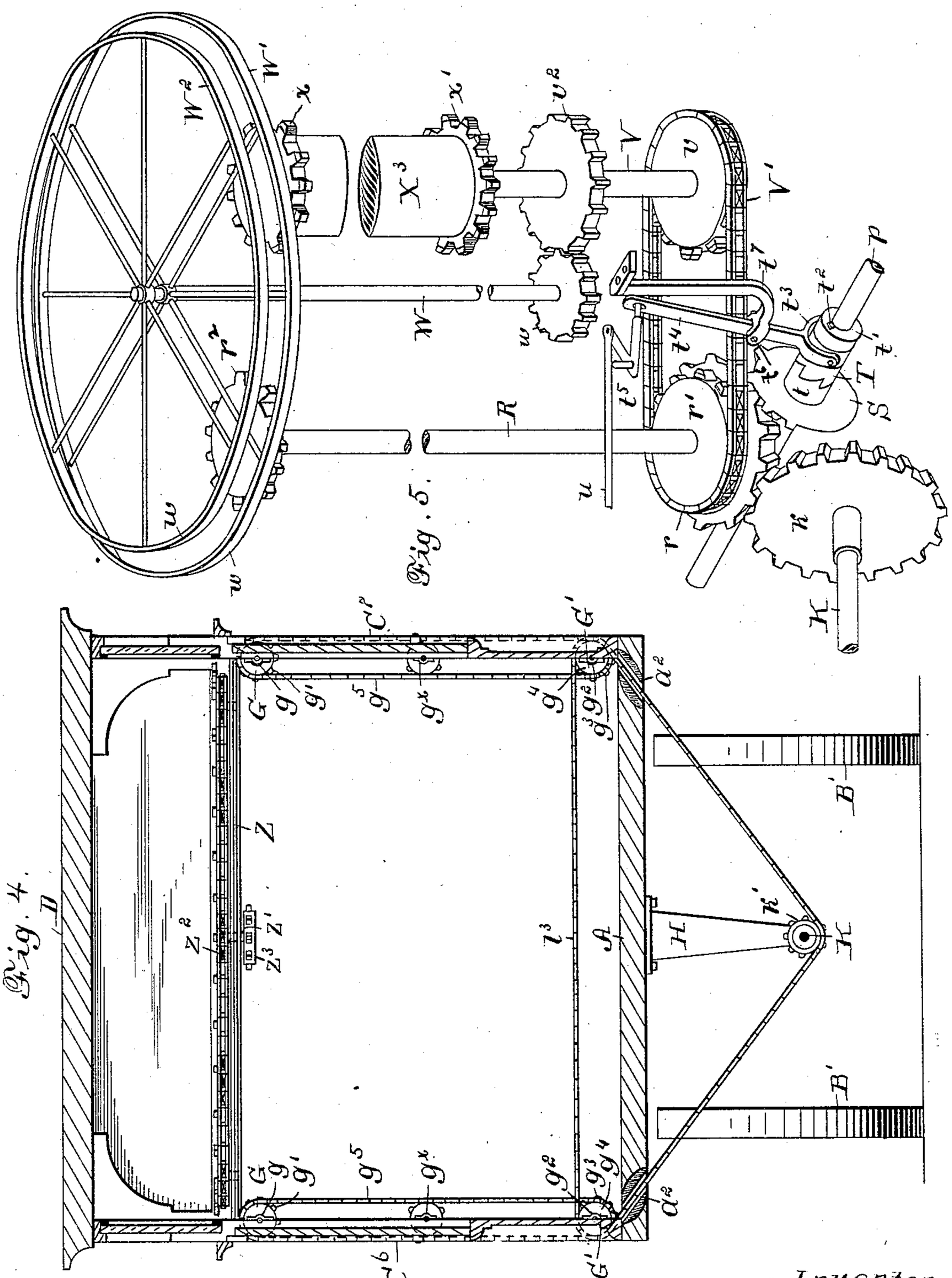

Fig. 5.

Fig. 4.

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UNITED STATES PATENT OFFICE.

ODD J. RATLIFF, OF KANSAS CITY, MISSOURI.

ADVERTISING-VEHICLE.

SPECIFICATION forming part of Letters Patent No. 453,209, dated June 2, 1891.

Application filed September 30, 1890. Serial No. 366,708. (No model.)

To all whom it may concern:

Be it known that I, ODD JAMES RATLIFF, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Advertising-Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the same, such as will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

My invention has for its object a display-vehicle upon which a series of panoramic advertisements of diverse character are arranged, the movements of which vehicle will communicate constant or intermittent movements to the advertisements; and it consists, first, in a display-vehicle in which the scope of the moving panorama or advertisement is enlarged at the end; second, in the mechanism for reproducing and displaying a series of advertisements at intervals and in diverse lines of movement; third, in the means for increasing the length and carrying the convolutions of the endless display-curtain; fourth, in the novel means of exhibiting miniature figures detachably connected with the endless chain.

My invention further consists in the novel construction and combination of parts, which will first be fully described, and specifically pointed out in the claims.

In the drawings, Figure 1 is a side elevation of the advertising-vehicle, showing the diverse panoramic endless advertising-curtains and the operating mechanism upon the under side of the bed of vehicle connected with the traction-wheels and the levers for controlling the movement of said mechanism wholly or in part, a portion of the curtain being broken away to show the roller. Fig. 2 is a plan view of the advertising-vehicle with the top removed, showing the endless sprocket display-chain carrying the horizontally-moving series of figures in the upper portion and on the side of the vehicle the rotatory circular track at the end of the vehicle and the actuating sprocket wheels and chain connecting with the endless display-chain. Fig. 3 is a horizontal sectional view of the vehicle, taken upon the line X X of Fig. 1, portions of the bed of the vehicle being broken away to show the traction-wheels and the mechanism for operating the endless curtain connected therewith, and also the operating shafts and levers. Fig. 4 is a vertical transverse sectional view of the advertising-vehicle, taken upon the line Y Y of Fig. 1. Fig. 5 is an isometrical view of the operating mechanism of the rear end of the vehicle, shown disconnected therefrom and showing a portion of the rear axle and the broken gear and clutch thereon. Fig. 6 is a detail view of one of the links of the vertically-moving curtain or sprocket-chains. Fig. 7 is a detail view of one of the links of the horizontally-arranged sprocket-chains, showing the automatic clutch on the link for retaining the separate figures upon the endless sprocket-chain.

Similar letters of reference indicate corresponding parts in all the figures.

In the construction of my invention, A represents a platform or bed of the body of the advertising vehicle or car, the forward end *a* of which bed is mounted upon the front axle B and the traction-wheels B′ B′ and the rear end *a′* in a suitable manner upon the traction-wheels B^2 B^2. The end portion *a* of the platform over the traction-wheels B′ B′, and extending a greater portion of its length toward the rear traction-wheels, is rectangular in form, and the rear end portion *a′* over the rear traction-wheels is made to extend in radial lines from a point equidistant from the sides of said wheels in the form of the arc of a circle, describing nearly three-fourths of a circle in area.

For the purpose of displaying the advertising-curtains the sides of the wheels are constructed as follows: On both sides of the platform or bed A and at the extreme forward end are rigidly secured the lower end portions of the corner posts or standards C C′. A short distance from and in line with the corner-standard C on one side of the bed A and toward the rear end of said bed is attached the lower end portion of a standard C^2. In the transverse direction and upon the other side of bed A is attached in line with standard C^2 the lower end portion of the standard C^3, which is placed the same distance from said corner-standard C′ as described between standards C C^2. In line

with standards C C^2 upon one side of the vehicle and at a point on the portion a of the bed A which meets the curved line of the rear end portion a' of the bed A is attached the lower end portion of a standard C^4, and upon the other side of the bed A, in line with the standards C' C^3 and at the point of the meeting of the longitudinal and curved lines of the side of said bed, is attached the lower end of a standard C^5. A short distance from the standard C^4, toward and in line with the standard C^2, is attached the lower end of the standard C^6, and upon the other side of the bed A, in line with the standards C^3 C^5 and at the same distance from the standard C^5 toward standard C^3 as is described between standards C^4 C^5, is attached the lower end of the standard C^7. The upper ends of the standards C C^2 C^6 C^4 upon one side of the body of the vehicle and C' C^3 C^7 C^5 upon the other side extend an equal height and support the top D, which conforms in shape to the bed A and extends over the body of the vehicle in rear of the standards C^2 C^3. Upon the outer sides of the standards C' C^2 C^4 C^6, a short distance below the line of the roof D or the proper distance to mark the space for the upper movable advertising-figures, is attached in a horizontal position a bead or molding E, which also extends to and around the rear end of the body of the vehicle in the same degree of curvature as described by the portion a' of the bed A and the top D of the vehicle covering said portion of the bed and is attached in like manner to the standards C' C^3 C^5 C^7 in the other side of the vehicle.

Beneath the top D and extending from the standard C^4 on one side of the body of the vehicle to the standard C^5 upon the other side, also in rear of said standards to the bead or molding in line with said bead, is a horizontal partition or ceiling D'. Between the standards C C^2 in the rabbets c c, which are made in the outer edge portion of said standards, is inserted a panel F, which extends in a vertical direction from the bed A of the vehicle to the bead E, and is retained in place by means of the turn-buttons f f, which are pivoted to the outer side portion of the said standards, as also the bead E. Between the standards C^4 C^6 in the rabbets c' c^2, which are similar to the rabbets c c, is placed a panel F', which is secured removably in place in the same manner as the panel F. Upon the other side of the vehicle, between the respective standards C' C^3 C^5 C^7, are placed the panels F^2 F^3, which are fitted with rabbets similar to the rabbets c c' and secured to the standards C' C^3 C^5 C^7 in the same manner as the panels between the standards C C^2.

In the walls of the car between the standards C^2 C^6 and in the opening between said standards and journaled at each end in the boxes g g (see Fig. 4) on the inner side of said standards, a short distance below the line of the bead E is a horizontal roller G. Around both ends of the roller G are sprocket-wheels g'.

Beneath the roller G and journaled at each end in the boxes g^2, which are placed a short distance above the bed A of the vehicle, is a roller G', which is also provided at each end with the sprocket-wheel g^3. Upon the other side of the vehicle between the respective standards C^3 C^7, and journaled in the boxes g g^2, which are placed in like positions upon said standards C^3 C^7 as upon the standards C^2 C^6, are corresponding rollers G G', which also are provided with sprocket-wheels at each end. Upon the journals of the lower rollers G' G' near the respective standards C^6 C^7 are attached outside of the sprocket-wheels g^3 g^3 the sprocket-wheels g^4 g^4, a portion of the said standards C^6 C^7 being recessed at $c^\times$ to receive said sprocket-wheels. Around the sprocket-wheels g', upon one end of the roller G, is placed one end of an endless sprocket-chain g^5, the other end of which chain is passed around the sprocket-wheel g^3 on the roller G' and the two ends connected in the usual manner. Upon the other end of the roller G G, and around the sprocket-wheels at same end is passed a similar sprocket-chain g^5. Upon the other side of the body of the vehicle sprocket-chains are connected to the sprocket-wheels in the rollers G G' in a similar manner.

To the under side portion of the bed A, equidistant from the sides of the body of the vehicle and in the vertical plane extending through the sprocket-wheels on the end of the rollers g' g^3 near the standards C^6 C^7, is attached the upper end of the shaft-hanger H, the lower end of which extends a slight distance below the plane of the axes of the traction-wheels B^2. A short distance from the hanger H in the direction of the axles of the said traction-wheels B^2 and to the under portion of the bed A is attached a similar shaft-hanger I. In the hanger H is journaled one end of a shaft K, the other end of which shaft extends through the hanger I, and to said end is attached rigidly a bevel-gear k. Upon shaft K near hanger H is attached loosely a sprocket-wheel K', upon the side portion of which opposite the shaft-hanger I is attached one portion l of a clutch L the other portion l' of which clutch is keyed at l^2 upon the shaft K.

Beneath the sprocket-wheels g^4 g^4 on the rollers G' G', extending through the bed A, are made the obliquely-inclined openings a^2 a^2. (See Fig. 4.) Through one of said openings, upwardly from beneath the bed A, is passed one end of an endless sprocket-chain l^3, thence over one of the sprocket-wheels g^4 on the roller G' on one side of the vehicle, thence to and over the sprocket-wheel g^4 on the roller G' on the other side of the vehicle, thence downward through the opening a^2 and under the sprocket-wheel K' on shaft K, and

both ends of the sprocket-chain connected together in the usual manner.

From the shaft-hanger H over the clutch L extends a support *h*. To the portion l^2 of the clutch L is pivotally attached the lower end portion of a lever l^4, which lever extends in a vertical direction to within a short distance of the under side portion of the bed A and is pivoted at l^5 to the outer end portion of the support *h* a short distance above clutch L.

The portions of the sides of the vehicle directly above the respective panels F F′ at the forward end of the vehicle and above the bead or molding E are composed of fixed panels F^2 F^2, between which is placed the operator's seat M, the portion of the top D of the vehicle over said seat being removed.

Upon the forward end of the vehicle, a short distance below the position of the seat M, is attached the foot-board N, to which is attached the dash-board *n*, which extends upward at an oblique angle to the board N.

To the under side portion of the bed A of the vehicle at the extreme forward end, at a point equidistant from the sides of the body of the vehicle, is attached an arm *o*, the lower end of which extends in a downward direction and is projected forward in line with the under portion of the foot-board N. To said lower end portion of the arm *o* is pivotally attached the lower end of the operating-lever O, the upper end *o′* of which extends in an upward direction through the transverse slot *n′*, cut in the dasher *n*, and upon said upper end is attached a transverse curved leg-rest o^2. To the lever O, a short distance above the point of connection of said lever with the arm *o*, is pivotally attached one end of a connecting-rod o^3, the other end of which rod is pivotally connected with the upper end portion of the lever l^4 beneath the bed A.

To the under side portion of the bed A, and near the inner side of one of the rear traction-wheels B^2, is attached a shaft-hanger P, and in an opposite position, near the inner side of the other rear traction-wheel B^2, is attached a similar hanger P′. In the hangers P P′ is journaled the shaft *p*, upon one end portion of which shaft, between the said hanger P and the inner side portion of the traction-wheel B^2 is attached rigidly a sprocket-wheel *p′*. Upon the traction-wheel B^2, and attached by means of the loops *b* (see Fig. 1) to the spokes of said traction-wheel, around its axis, and upon the inner side of said wheel, is a sprocket-wheel *b′*, portions of the spokes of the rear traction-wheel being broken away to show said wheel. Over the sprocket-wheel *p′* on shaft *p* is placed one end of a sprocket-chain p^2, the other end of which chain is extended over the sprocket-wheel *b′* on the traction-wheel B^2 and the two ends connected in the usual manner. Upon the other end of shaft *p*, opposite the other rear traction-wheel B^2, is fixed a similar sprocket-wheel *p′*, and upon the said traction-wheel is attached in a similar manner a sprocket-wheel *b′*, over which wheel *b′* and the said sprocket-wheel on shaft *p* is placed a sprocket-chain in the same manner as described on the other side.

In a vertical direction through the bed A of the body of the vehicle and directly above the shaft *p* is extended a main shaft R, upon the lower end of which is fixed a bevel-gear *r′*, which meshes with the gear *k* on the shaft K. On the shaft R, above the gear *r*, is rigidly attached a sprocket-wheel *r′*. On the shaft *p*, beneath the bevel-gear *r′* and meshing therewith, is rigidly attached a bevel-gear S, the teeth upon which are broken away a distance equal to three-fourths of the circumference of the said gear. This distance, however, may be varied and the teeth arranged upon the gear so as to engage with the gear *r′* at measured intervals. Upon the outside portion of the gear S, around shaft *p* and rigidly connected with said gear S, is one portion *t* of a clutch T, the other or movable portion *t′* of which clutch is keyed at t^2 upon shaft *p*. To the movable portion t^2 of clutch T is attached the low forked end t^3 of a lever t^4, the upper end of which lever extends in a vertical direction nearly to the bed A. In the under side portion of the bed A is attached the horizontal bell-crank lever t^5. One arm of the lever t^5 is pivotally attached to the upper end of the lever t^4. Between the forked end of the lever t^4 and the upper end of the said lever are attached the pins t^6, which rest upon the forked portions of the lower hooked end of the support t^7, the upper end of which support is attached to the under side of the bed A.

To the front end of the vehicle and to the lower end of support *o*, upon the other side from that supporting the lever O, is pivotally attached the lower end of an operating-lever U, which also extends in an upward direction through the transverse slot n^2 on the dasher *n* and is provided with a leg-rest o^2. A short distance from the pivotal point of connection of the lever U with the support *o* is attached one end of a connecting-rod *u*, the other end of which rod is pivotally attached to the other arm of the bell-crank lever t^5.

In the direction of the end portion of the vehicle from the sprocket-gear *r′* is a sprocket-wheel *v*, which is molded upon the lower end of a vertical shaft V, the other end of which shaft extends upwardly through the bed A a short distance. Over the gear *v* on shaft V is placed one end of a sprocket-chain V′, the other end of which chain extends over the sprocket-wheel *r′* on shaft R and the two ends are connected together in the usual manner. Above the gear *v* on shaft V, beneath the bed A, is fixedly mounted a spur-gear v^2.

Through the bed of the vehicle, near in position to the shaft R, is extended a shaft W, upon the lower end of which shaft W is rigidly attached a gear *w*, which meshes with the gear v^2 on shaft V. The upper end portion of shaft W extends in an upward direction and is journaled in the roof D of said

vehicle. (See Fig. 1.) Upon the upper portion of shaft W, above the ceiling D′ and beneath the roof D of the vehicle, is rigidly attached a horizontal wheel W′, the diameter of which is nearly that described in a transverse direction of the vehicle through the circular end portion a'. A short distance above the wheel W′ and attached rigidly to the shaft W is a second wheel W^2, the diameter of which is a degree smaller than the wheel W′. The rims of both wheels W′ W^2 are composed of thin strips, which form a track w. Upon the lower wheel W′ is hooked the series of movable figures W^3 W^3, which consist of miniature cars in this instance, suspended by the hooked strip w', which figures pass in the rotation of the wheels W′ W^2 near the bead E.

Between the upper side of the bed A and the portion or ceiling D′ and in line with the curved end portion a' of the vehicle are placed a short distance apart from each other a series of vertical rotating rollers X X. (See Figs. 1 and 3.) The lower ends of said rollers are journaled in the bed A of the vehicle and the upper ends in the partition D′. Upon the upper ends of each one of the rollers X X is attached a sprocket-wheel x, (see Fig. 2,) and upon the lower ends a sprocket-wheel x'. (See Fig. 3.) At equal distances apart in the described curved line of the end portion a' of the vehicle two of said rollers X X in the series are placed in position so as to leave a short space between them, and upon the line of radius described between said rollers X′ X′ and the shaft W and equidistant between said shaft and rollers are arranged the vertical rollers X^2 X^2 X^2. (See Fig. 3.) Upon the upper and lower ends of the rollers X^2 X^2 X^2 are attached sprocket-wheels, which are similar to the sprocket-wheels x x' upon the rollers X X. To the upper end portion of the shaft V, which extends through the bed A, is attached the lower end portion of a vertical roller X^3, the upper end of which is journaled in the partition D′ in the same manner as the rollers X X, and upon the upper and lower ends is provided with a sprocket-wheel similar to the sprocket-wheels x x' on the rollers X X. Over the sprocket-wheel x x on the upper end of the roller x^2 from a position opposite one of the rollers X^2 is passed one end of an endless sprocket-chain x^4, the other end of which chain is extended over the sprocket-wheel on the upper ends of the rollers X near the standard C^5 on one side of the vehicle, thence over the sprocket-wheel upon the next adjoining roller and outside of said roller, thence to the next adjoining rollers x' x', which are close in position, and between said rollers and looped over the sprocket-wheel on the roller x^2, thence back between the said rollers x' x' and over the other sprocket-wheel on the other roller x', thence continued over the next succeeding sprocket-wheels until the succeeding pair of rollers x' x' are reached, when the loop is made over the next succeeding sprocket-wheel in the radius of the circle, thence continued, as before, over the next sprocket-wheel and the loops made as often as required, and thence over the sprocket-wheel near the standard C^4 on the side of the vehicle from that having the standard C^5, and the two ends of the chain connected together in the usual manner. Over the lower sprocket-wheel on the roller X^3 is placed a similar endless sprocket-chain x^5, which is passed over the sprocket-wheels on the rollers x x' x^2 in the same manner as described in the chain x^4.

In the forward end and upper portion of the vehicle, in line horizontally with the moving figures W^3, are arranged a series of horizontally-moving object figures, which also are displayed on both sides of the vehicle, which figures are detachably connected with an endless sprocket-chain, which is supported as follows: A brace-bar Z is attached to the inner side portion of the standard C^6 at one end and extended transversely to the bed A across the interior of the vehicle on a line horizontally with the partition D′ and connected at the other end with the standard C^7. Attached to the side of said bar Z and extending toward the partition D′ are the horizontal supports z z. Upon the corresponding side of and from bar Z at a point equidistant from the ends extends a short support z, (see Fig. 3,) through which extends a pivot z', and attached rigidly to said pivot at one end above the support z is a sprocket-wheel z^2, and to the other end, on the under side of said support z, is attached a similar sprocket-wheel z^3. (See Fig. 4.) Two supports z z are placed on the bar Z near the respective inner sides of the vehicle and so far as to permit the devices or figures upon the sprocket-chain to pass between the chain and sides of the vehicle, as hereinafter described, and between said supports in the direction of the sprocket-wheels z^2 z^3 the supports are decreased in length. Upon the outer ends of the supports z z are pivotally secured the sprocket-wheels z^4. To the inner side portion of the respective standards C^2 C^3 are attached the supports z^5 z^5, which extend at an oblique angle and the proper distance from said standards and on a line horizontally with the bar Z, upon the outer ends of which supports are pivotally secured the sprocket-wheels z^6 z^6. Over the sprocket-wheel z^2 on the bar Z from a position in the direction of the forward end of the vehicle is extended one end of a sprocket-chain z^7, which is passed over the sprocket-wheel z^4, thence over the sprocket-wheel z^6 and between the support z^6 and the inner side of the vehicle having standard C^7, thence over the sprocket-wheel z^6 on the support z^5, thence in rear of the seat M to the other sprocket-wheel on the other side of the vehicle, thence parallel with the side of the vehicle over the sprocket-wheel z^4 on the corresponding side of the vehicle, and the two ends of the sprocket-chain connected together in the usual manner. To operate the chain

z^7, one end of a sprocket-chain z^8 is first passed over the sprocket-wheel z^3 on the support z on bar Z, and thence to and over the sprocket-wheel r^2 on the vertical shaft R and the two ends connected together in the usual manner. The separate links of the sprocket-chain g^5 are each made with a projected side portion or lug $g^\times$, which is perforated in a transverse direction of the links. To each link of the endless chain z^7 is attached rigidly upon one corresponding edge and in a transverse direction a tube $z^\times$. Through the tube $z^\times$ is extended a split pin z^9, which is provided with a head z^9 and two inwardly-bent spring-jaws $z^{10}z^{10}$, which spring apart when pushed out of the tube $z^\times$ and clasp or clamp upon each other when drawn into the tube. To the chain z^7 is attached a series of miniature figures, letters, or signs Z′, upon the back portion of which are loops z^{12}, (see Fig. 7,) by means of which the separate signs or devices are held in place upon the chain z^7. To the links of one of the sprocket-chains g^5 upon the rollers G G′ upon one side of the vehicle is attached one portion of the endless curtain G^2, which incloses the side between standards C^2 C^6, and which portion is stitched to each link, and the other portion of one end stitched to the link of $g^\times$ upon the other parallel chain at the other end of the said rollers, and the length of the curtain stitched to said links of the chain in a corresponding manner, the two ends of the curtain being sewed or otherwise connected together. Upon the other side of the vehicle and inclosing the portion between standards C^3 C^7 a similar apron G^2 is placed upon the rollers G G′ and attached to the sprocket-chains in precisely the same manner as between the standards C^2 C^6. Between the rollers G G′ are idle-rollers g^7. (See Fig. 4.) To the sprocket-chains x^4 are attached a horizontally-moving endless curtain X^4, which incloses the compartment at the end of the body of the vehicle, the links of which chain are the same as in the sprocket-chain g^5, as in Fig. 6, the upper portion of which curtain X^4 is stitched to the links of the horizontal upper chain X^3 and the lower corner to the lower chain X^3, and the curtain made to extend the entire length of said chains, the convolutions of which curtains are made in describing the loops in the chains and the two ends of the curtain connected and stitched together in the usual manner.

To the forward axle B of the vehicle is attached draft-pole B^4. In the operation of the mechanism heretofore described power is applied to the draft-pole B^4 and movement imparted to the traction-wheels B′ B^2, which in turn impart movement to the gear p' and shaft p, and the broken gear S upon said shaft causes the gears r and v to make a partial rotation and then stop, and when the movement is renewed the fragmentary portion of the teeth upon the gear S again meshes with said gears r and v. In the movement of said gear S the gear k and shaft K are also operated, and the sprocket-chain l^3, by means of the sprocket-wheel k', and the sprocket-chain on the rollers G G′ are placed in motion, and the endless curtains G^2 on said rollers upon one side of said vehicle are made to travel in an upward direction and upon the other side in a downward direction. The same movement of the gear S also causes the rotation of shaft R, and the sprocket-chain v' is made to travel in one direction as far as permitted during the time the sprocket-wheel S imparts a movement to the gear v'. In the movement of the sprocket-wheel r' the sprocket-wheel v and shaft V are also rotated in a like degree, and the endless curtain X^4 is caused to move over the rollers in the manner described. The movement of the gear v' also actuates the sprocket-chain z^8 and the endless sprocket-chain z^7, whereby it is seen that all the various figures and curtains are set in motion and this motion made intermittent by the broken gear S.

The curtains which are connected with the sprocket-chains are made of cloth, paper, or any other suitable material, and upon the surface which is presented to view upon the vehicle are painted, printed, or otherwise affixed suitable letters or characters, as may be desired. By means of the convolutions of the endless apron X^4, I attain this object.

A number of dissimilar names of persons and the goods which they buy and sell are painted or affixed upon the curtain in alternate order and are made to cover such portion of the curtain as would be displayed in part and covering the space between the convolutions in the curtain, with which convolutions the dissimilar signs are concealed during the interval of time the gear S ceases to actuate the mechanism.

As seen in Fig. 1, all the various curtains and figures are in position to move simultaneously. This order, however, may be changed, and the aprons at the sides or end of the vehicle may be operated independently of the other. To accomplish this and permit the curtains G^2 to remain stationary, the lever O is thrown toward the end of the vehicle and the portion l^2 of the clutch L on shaft K is disengaged from the portion l of same clutch, and the movement of the sprocket-chain l^3 ceases. The movement of the endless curtain X^4 and the horizontally-arranged figures W^3 Z′, I have shown so arranged that the movement of one is simultaneous with the other. This arrangement may, however, be varied and the gear upon the shafts R and V placed loosely thereon and the clutch made to operate the mechanism connected therewith in the same manner as upon shaft p. To stop the movement of the endless apron X^4 and the characters or figures Z′ W^3, the lever U on the forward end of the vehicle is also thrown in the direction of said end, and the keyed portion t' of the clutch T on shaft p is disengaged from the portion t, and the gear S ceases to move. I have de-

signed the track W′ W² on the shaft W to support separate characters or devices, which are quickly removed and others substituted when required. In this manner advertisements or information of any kind is rapidly displayed and kept in an enduring form.

For the proper display of the characters from within the compartment of the vehicle through the aprons at night any well-known method of illumination may be used. The curtain at the end of the vehicle may be used for stage and scenic effects in transformation scenes, and also to contain the historic account of the movable characters in the adjoining openings in the walls of the car, and when the body of the car or vehicle is desired to be used for other purposes the traction-wheels are removed and suitable driving-power applied to operate the curtains.

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

1. In an advertising-vehicle having its platform mounted upon traction-wheels and sides of said vehicle provided with transverse openings, and roller-carrying supports upon each side of each said opening, and rollers journaled at each end in said supports, having suitable chain-wheels, the combination, with said platform, of shaft-hangers and a driving-shaft thereon, shaft-actuating gear upon the traction-wheels and extending to and connected with one end of said driving-shaft, and suitable chain-wheels mounted loosely upon the other end of said shaft, having a portion of a clutch attached thereto and the other portion of the clutch keyed upon said shaft, a chain extending over said wheel upon said shaft and extending over said wheels upon said curtain-rollers, and a lever upon said vehicle connected with the keyed portion of said clutch, for the purpose described.

2. In advertising-vehicles, the combination, with a display-platform suitably mounted upon traction-wheels, of a driving-shaft extending vertically through said platform, gear-wheels upon said traction-wheels, and a display-wheel mounted upon the upper end of said shaft and a broken gear upon its lower end, a shaft in suitable hangers having gear-wheels thereon, and endless gear extending to and over the said gear on said traction-wheels, substantially as and for the purpose described.

3. In advertising-vehicles, the combination, with a display-platform suitably mounted upon traction-wheels and having a rear extension of said platform in radial lines, of a driving-shaft extending vertically through said platform at a point equidistant from the sides of said platform and the center of said radial lines described by said rear extension of said platform, gear-wheels upon said traction-wheels, and display-wheels mounted upon the upper end of said shaft and a broken gear upon its lower end, a shaft in suitable hangers having gear-wheel thereon, and endless gear extending to and over the said gear on said traction-wheels, substantially as and for the purpose described.

4. In an advertising-car, the combination, with the walls of said car, having suitable transverse openings arranged one above the other, and roller-carrying supports upon the car upon each side of one of said openings, rollers journaled at each end in said supports, and a traveling endless display-curtain within said opening upon said rollers, of a series of miniature objects in the other opening, having suitable supports therefor, and means for rotating said supports, substantially as and for the purpose described.

5. In an advertising-car, the combination, with the walls of said car, having suitable transverse display-openings, of supports extending from the inner side portions of said walls, having chains carrying wheels mounted upon said supports, and an endless chain extending over the said openings in the walls of said car and over each one of said chain-carrying wheels, clasps upon said chain, and miniature display objects secured to said chain upon said clasps, and means for propelling said chain upon said chain-carrying wheels, as and for the purpose described.

6. In an advertising-car, the combination, with the walls of said car, having suitable transverse openings and supports upon both sides of said openings, of rollers on both sides of said openings, journaled at each end in said supports and provided with sprocket-wheels, an endless sprocket-chain extending over one of said sprocket-wheels on one of said rollers and also to and over the sprocket-wheel on the other rollers, shaft-hangers attached to the under side portion of said car and a shaft mounted thereon, and a sprocket-wheel upon one end of said shaft, traction-wheels having sprocket-wheels thereon, and a sprocket-chain extending over the sprocket-wheel upon said traction-wheel and also to and over the sprocket-wheel on said shaft, and broken gear loosely mounted upon the other end of said shaft, having a portion of a clutch thereon and the other portion of said clutch keyed upon said shaft, for the purpose described.

ODD J. RATLIFF.

Witnesses:
S. L. C. HASSON,
W. J. ANDREWS.