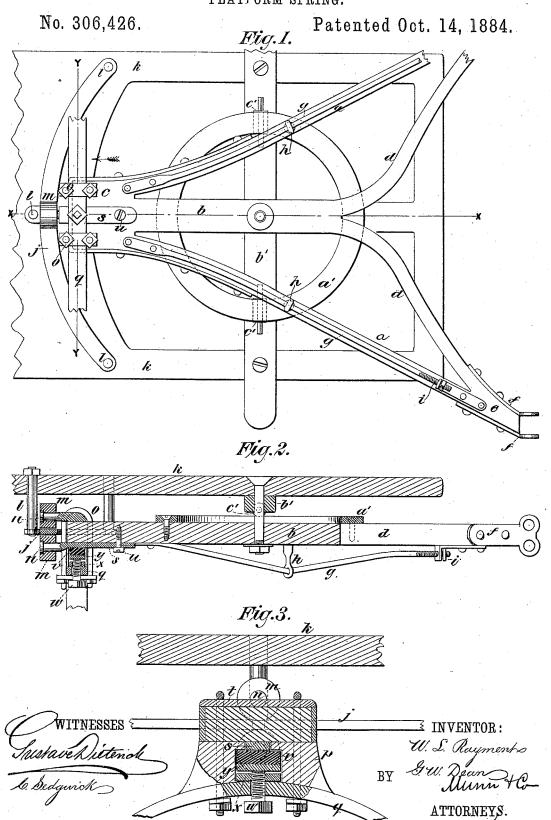
## W. L. RAYMENT & G. W. DEAN. PLATFORM SPRING.



## UNITED STATES PATENT OFFICE.

WILLIAM L. RAYMENT AND GEORGE W. DEAN, OF QUINCY, MICHIGAN.

## PLATFORM-SPRING.

CPECIFICATION forming part of Letters Patent No. 306,426, dated October 14, 1884.

Application filed February 1, 1884. (Model.)

To all whom it may concern:

Beit known that we, WILLIAM L. RAYMENT and GEORGE W. DEAN, of Quincy, in the county of Branch and State of Michigan, have 5 invented a new and Improved Platform-Spring Wagon-Gear, of which the following is a full, clear, and exact description.

Our invention consists of the platform constructed of a single piece of wood by splitting, 10 bending, and connecting the ends of the bent and branched portions in a simple contrivance by which the framing of the parts of the platform is avoided, and a better platform is provided.

Our invention also consists of an improved contrivance of the sway-bar for greater efficiency in keeping the platform level on uneven ground, and also an improved contrivance of friction-rollers for the support of the 20 bolster on the platform, all as hereinafter fully

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate 25 corresponding parts in all the figures.

Figure 1 is a plan view of our improved platform-spring wagon inverted. Fig. 2 is a longitudinal sectional elevation on the line  $x\,x$  of Fig. 1, and Fig. 3 is a transverse section of 30 Fig. 1 on the line y y.

We make the platform of a single piece of wood by taking a bar of suitable length and width, and slitting branches a from the central body, b, from one end nearly to the other, but leaving a short section, c, of said bar the full width of the same. We also slit the central part, b, from the same end along the center about half the length of branches a, and bend or spring the branches d and a outward, 40 as shown in Fig. 1, and connect the ends of said branches together at e, also connecting the eye-plates f, thus forming the jaws for the connection of the shaft-couplings.

To stiffen the branches  $\hat{a}$  vertically, we fit 45 the truss-rods g with studs h, and adjustingscrews i on the lower sides of said arms, as shown.

For the connection of the back end of the platform with the sway-bar, we use a single

bed-frame a suitable distance by the stud-bolts l, and arrange a roller, m, above and below the bar on roller study n, attached to the upper and lower sides of the platform. The upper roller-stud n is formed on a cap-plate, t, which 55 is firmly clamped down on the end of the platform by yokes o, which also connects the spring-block p and the spring q; and the lower roller-stud has a shank, s, extending a sufficient distance along under the platform to a 60 fastening bolt, u, which allows the stud to spring a little, so as to be pressed firmly against the side of the sway-bar and not bind thereon, and we fit a rubber or other spring, v, under said stud-shanks in a socket of the 65 spring-block, and with an adjusting-screw, w, under the spring, to press the spring against the shank of the stem with the requisite force. The screw extends up through a hole in the spring, also through a nut, x, supported by 70 the spring, and a bearing-plate, y, is interposed between the screw and the spring for the protection of the latter.

We use a continuous ring, a', for the bearing of the bolster b', and attach friction-rollers 75 c' to the bolster at the bearing-points for the support of the bolster, this arrangement being practicable in a platform-wagon having the platform connected above and below the swaybar at the rear end, as above described, to 80 prevent the rocking of the platform under the bolster.

Having thus fully described our invention. we claim as new and desire to secure by Letters Patent-

1. In a platform-spring wagon-gear, the herein-described platform, consisting of the section c, the branches a, the central body, b, and the branches d, the whole formed from a single piece of wood, and the branches  $a\ d$  be- 90 ing secured together at the forward ends, as at e, substantially as herein shown and de-

2. The platform connected at the rear end to a single sway-bar by a friction-roller, m, 95 above and below said bar, and mounted on roller-studs projecting from the end of the platform, substantially as described.

3. In a platform connected at the rear end 50 bar, j, suspending it from the sills k of the l to a single sway-bar, j, with a friction-roller, 100 2

m, above and below said sway-bar, and mounted on stude attached to the platform, the shank of the lower roller attached suitably for a yielding action, and held or pressed up with an adjusting screw and spring, substantially as described

4. The upper roller-stem n, attached to a cap-plate, t, and clamped to the platform together with the spring-block p and spring q, so said spring-block containing a spring, v, nut x, and screw w, for clamping the lower roller-stem to said platform, substantially as described.

5. In a platform-spring wagon-gear having the rear end of the platform connected above 15 and below the sway-bar by the rollers m, mounted on stems attached to the end of the platform, the bolster b', arranged on the bearing-ring a', with friction-rollers c', substantially as described.

WILLIAM L. RAYMENT. GEORGE W. DEAN.

Witnesses:

E. H. KINYON, M. M. BROWN.