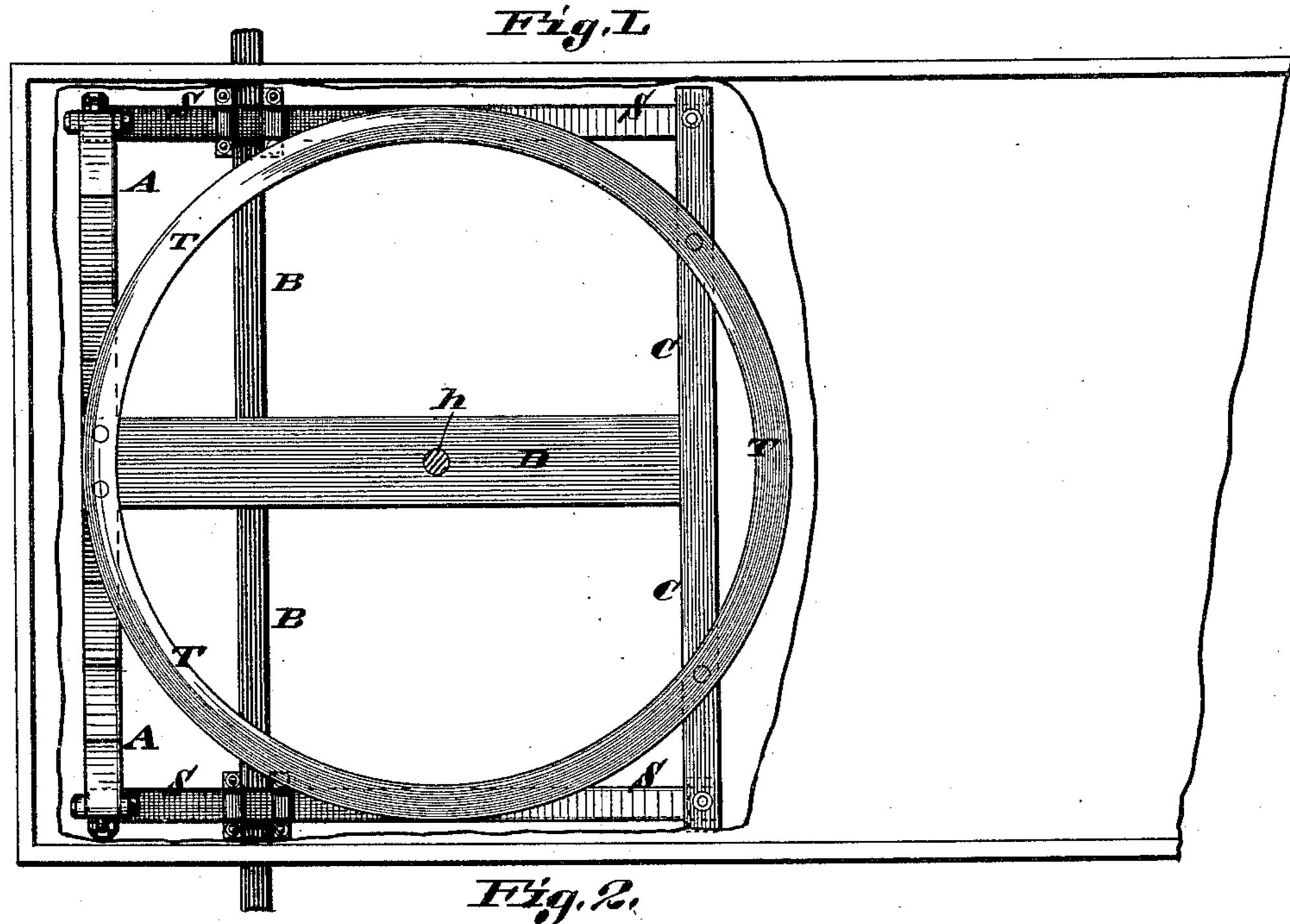
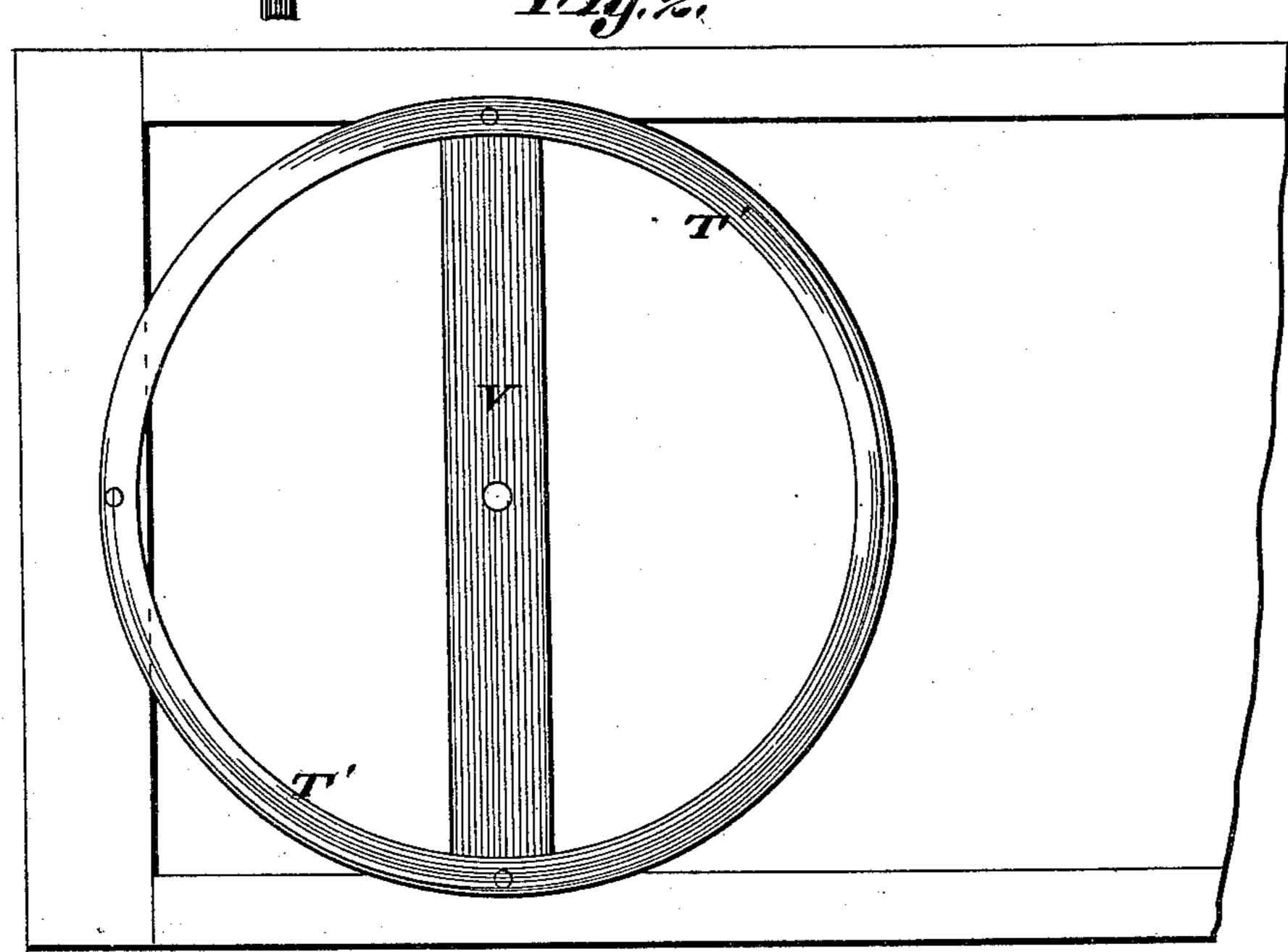
(No Model.)

## C. COMSTOCK. SHORT TURNING VEHICLE.

No. 432,226.

Patented July 15, 1890.





Attest! Charles Pickles, R. R. Sweet

Triveritor,

Charles Comstock

By MM M Eccles

This Attorney

## United States Patent Office.

CHARLES COMSTOCK, OF INDIANAPOLIS, INDIANA.

## SHORT-TURNING VEHICLE.

SPECIFICATION forming part of Letters Patent No. 432,226, dated July 15, 1890.

Application filed March 10, 1890. Serial No. 343,376. (No model.)

To all whom it may concern:

Be it known that I, CHARLES COMSTOCK, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Short-Turning Vehicles, of which the following is a specification.

My invention relates to short-turning vehicles; and it consists in the arrangement and combination of parts hereinafter described

and claimed.

The object of my invention is to construct a cheap and durable short-turning vehicle without cutting under the body or elevating the same above the wheels; also to construct a short-turning vehicle without a reach or pole; also to construct a short-turning vehicle that will not tip or twist the front of the body when being turned. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my vehicle with a part of the body cut away to show the front part of the running-gear. Fig. 2 is a bottom

25 view of body of my vehicle.

A is the front spring, running transversely across the vehicle in front of the axle B, and is shackled to the front ends of the springs S S, respectively, by double shackles. It is 30 clipped or otherwise secured at its crown to the large circular track-plate T. The springs S S are two longitudinal springs clipped or otherwise secured to the axle B at points forward of their centers sufficiently far to allow 35 the downward thrust of the spring A to be equal to the downward thrust of the rear ends of the springs S S, so that the track-plate in its movement up and down will move in horizontal planes without twisting or turning the 40 axle B. These springs are shackled in front to the transverse spring A, as above described, and in the rear to a cross-bar C by pivotal connections. This cross-bar C connects the two springs SS and serves to support the 45 rear of the track-plate T, to which it is secured by bolts or otherwise. From the front spring A to the cross-bar C is a plate or bar D, and is securely connected therewith.

At a point corresponding with the center 50 of the track-plate, as at h, is a pivotal connection consisting of an ordinary king-bolt, by which the whole platform is movably con-

nected to the bottom of the body, as seen at

Fig. 2.

To the bottom of the body is secured a cor- 55 responding track-plate T', which may be circular or segmental, which is secured by bolts through the frame-work of the body, and which serves to ride the track-plate T. Through a piece of timber V, which is a part 60 of the frame-work of the body, passes a kingbolt K, which connects the platform to the body back of the axle, as set forth. Now, it will be seen that this circular track-plate T, having a diameter approximately as large as 65 the width of the body, will always support the body in substantially a horizontal position, though the axle B be cramped to the right or left to its utmost limit, and will not suffer it to tilt or twist over, as is the case 70 where the track-plate is of a small diameter in such vehicles. This large track-plate makes a practical short-turning vehicle. The track-plate T, which rests on the front transverse spring A in its front portion and 75 on the cross-bar C at its rear portion, is made of one piece, and by being attached directly to the spring A and cross-bar C fore and aft serves to constitute the frame-work of the platform as well as a track-plate, and thus 80 makes the device much cheaper and stronger than if made in two or more segments. It is also made in a circle and not U-shaped. If made smaller than the approximate diameter or width of the body, it would not serve 85 the purpose of constituting a part of the frame-work of the platform, which it does by being made with a diameter approximating the width of the body. By making it large enough to reach from front spring to cross- 90 bar and circular and in one piece I secure strength, cheapness, and durability of parts, and am enabled to dispense with most of the parts used in other spring-platforms.

Now, what I claim, and for which I ask Let- 95 ters Patent of the United States to be granted to me, is—

1. A spring-platform composed of a single track-plate made in one piece, a transverse spring in front of the forward axle and to so which said track-plate is directly secured at its crown, a rear cross-bar supporting the rear part of said track-plate and to which it is directly secured, and two longitudinal springs

shackled at their front ends to said transverse spring and at their rear ends to said crossbar and each resting upon and secured to an axle intermediate between their respective centers and their front ends, substantially as described, and for the purposes set forth.

2. In a short-turning vehicle, the combination of a circular track-plate made in one piece, supported on the crown of a transverse spring in front, to which it is directly attached, and on a transverse bar in the rear, two longitudinal springs interposed between

said transverse spring and bar and to which they are shackled at their front and rear ends, respectively, and a front axle to which they 15 are secured intermediate between their centers and their front ends and said front axle carrying said longitudinal springs, substantially as shown.

CHAS. COMSTOCK.

Attest:

C. J. Rosenbaum, Ed D. Boren.