L. SCHAEFFER

Roundabout.

No. 167,941. Patented Sept. 21, 1875.

FIG. 1

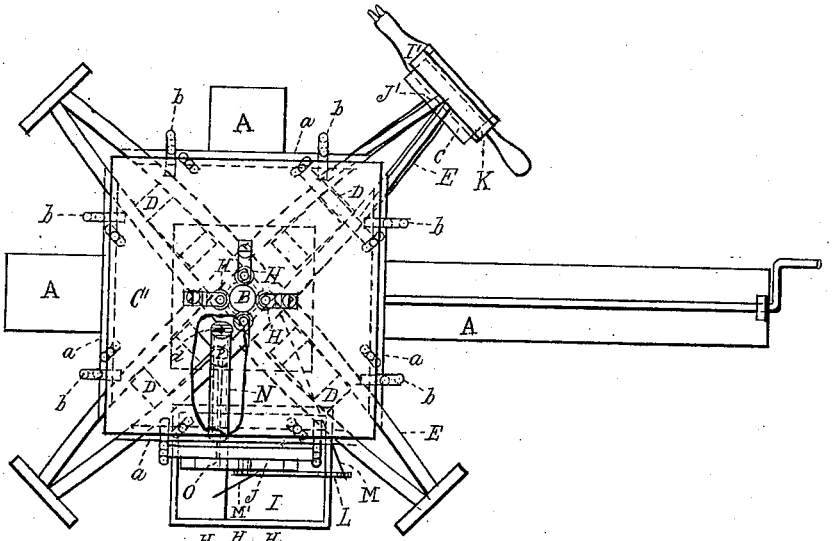
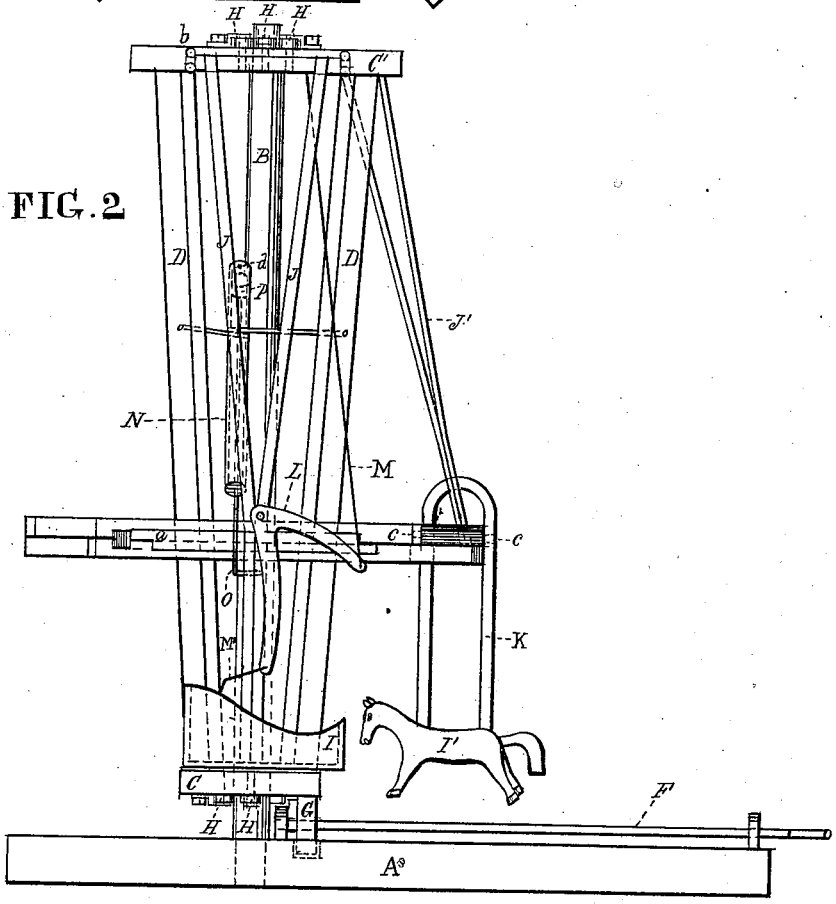


FIG. 2



Witnesses.

Thomas J. Bewley.

George C. Hetzel

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UNITED STATES PATENT OFFICE.

LEVI SCHAEFFER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO THEOPHILUS WAGNER, OF SAME PLACE.

IMPROVEMENT IN ROUNDABOUTS.

Specification forming part of Letters Patent No. **167,941**, dated September 21, 1875; application filed January 30, 1875.

To all whom it may concern:

Be it known that I, LEVI SCHAEFFER, of the city and county of Philadelphia, in the State of Pennsylvania, have invented an Improvement in Revolving Pleasure-Carriages, of which the following is a specification:

In a revolving pleasure-carriage having swinging frames which swing outward by centrifugal force, my invention consists, first, in the regulation of such outward movement by means of cords connected at their inner ends to the frame-work of the carriage, and at their outer ends to crank-levers controlled by the riders. In the second place, the invention consists in the prevention of each seat returning suddenly to its vertical position when the motion of the carriage is suddenly arrested, by means of an air-pump or spring connected at its outer end to the seat-frame by means of the piston-rod, and at its inner end to the revolving frame, near the central shaft, in such a manner as to have a swinging motion in adaptation to the swinging of the seats. The air is admitted into the inner end of the cylinder through a small orifice, and acting on the inner end of the piston as the latter falls back to its vertical position when relieved of the centrifugal force, the pump acts as a cushion to prevent its sudden inward movement, the inward stroke of the piston being gradual, in consequence of the discharge of the air being through the small orifice above mentioned.

The invention, in the third place, consists in such combination of pivoted hangers with the representations of horses or other animals, with laterally-swinging frames and the revolving frame, as to prevent such representations from crowding upon the seats when the carriage is brought to a state of rest.

The carriage is propelled by one or more horizontal driving-shafts provided with friction-wheels on their inner ends, upon which a bottom plate of the revolving frame rests. As the revolving frame is several feet high, I propose relieving the friction on the central shaft at the top and bottom by means of friction-wheels connected with the revolving frame, as hereinafter described.

In the accompanying drawing, Figure 1 is a plan view of my improved pleasure-carriage. Fig. 2 is a side view of the same.

Like letters of reference in both figures indicate the same parts.

A is a foundation-frame. B is a central shaft permanently connected at its lower end with said frame. The upper end may be braced in any convenient manner to hold it firmly in its vertical position. On the shaft B there is a revolving frame, consisting of the bottom plate or board C, the top-plate C′, posts D D D D, and cross-frames E E permanently connected to said posts and stiffened by means of braces *a a a a*. This revolving frame is propelled by means of one or more driving-shafts F, having friction-wheels G upon which the board or plate C rests, as seen in Fig. 2. Lateral friction of the revolving frame may be reduced by means of friction-wheels H, as seen in the drawings.

Any desirable number of box-seats I are connected with the revolving frame by means of the laterally-swinging frames J, the upper ends of which turn in eyebolts *b* with which the top plate C′ is provided; and, if desired, seats I′, in the form of a horse or other animal, may be suspended in the same manner by means of the swinging frames J′. The former are prevented going farther than a perpendicular position inward by the braces *a* above described.

In order to prevent the seats I or horses I′ from approaching too near the center, and thus crowding upon each other or coming too close together, the lower ends of the frames J′ rest against the ends of the cross-frames E.

To cause the horses to assume a vertical position when the machine is at rest, they are suspended to the bottom ends of the swinging frames J′ by means of hangers K pivoted to the cross-pieces *c*.

When the seats are thrown outward by centrifugal force their distance from the central shaft is regulated by the rider, there being pivoted to each seat-frame J and J′ a bell-crank lever, L, to which is attached the lower end of a cord, M, whose upper end is connected to the upper board or plate C′ near the central shaft B, and there is a cord, M′, also

attached to the crank, which is held by the rider.

Each seat-frame J or J′ is provided with an air pump or spring, N, which is hung at its inner end to posts D of the revolving frame. The outer end of the rod O of the piston P is connected to the swinging frame, and as said frame swings outward from the central shaft B and draws the piston P toward the outer end of the pump, the air rushes into the cylinder at its inner end, through the small orifice *d*, and fills the space back of the piston. If the movement of the carriage is suddenly arrested, as the air can only escape through said small orifice, the inward motion of the seat is controlled by the inward movement of the piston, hence the seat gradually assumes a vertical position.

I claim as my invention—

1. In a revolving pleasure-carriage having laterally-swinging frames and seats, the bell-crank levers L and cords M M′, in combination with each frame and the revolving carriage-frame, whereby the lateral position of the seats is regulated by the riders, substantially as set forth.

2. In a revolving pleasure-carriage having laterally-swinging frames provided with seats, an air pump or spring to prevent the sudden return of the seats to their inward position when the revolution of the carriage-frame is arrested, substantially as described.

3. In a revolving pleasure-carriage, the laterally-swinging frames J′, in combination with the cross-frames E and pivoted hangers K, substantially as and for the purpose described.

LEVI SCHAEFFER.

Witnesses:

STEPHEN USTICK,

JOHN N. HAGEY.