R. R. STEIN.

ROUNDABOUT.

APPLICATION FILED SEPT. 14, 1909.

966,134. **Patented Aug. 2, 1910.**

Fig. 1.

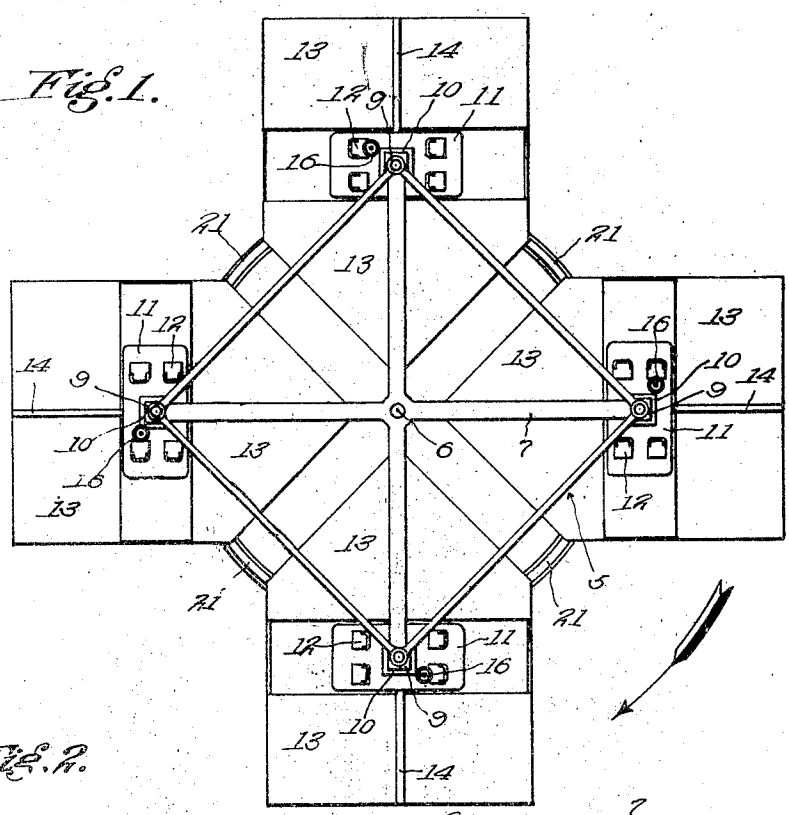
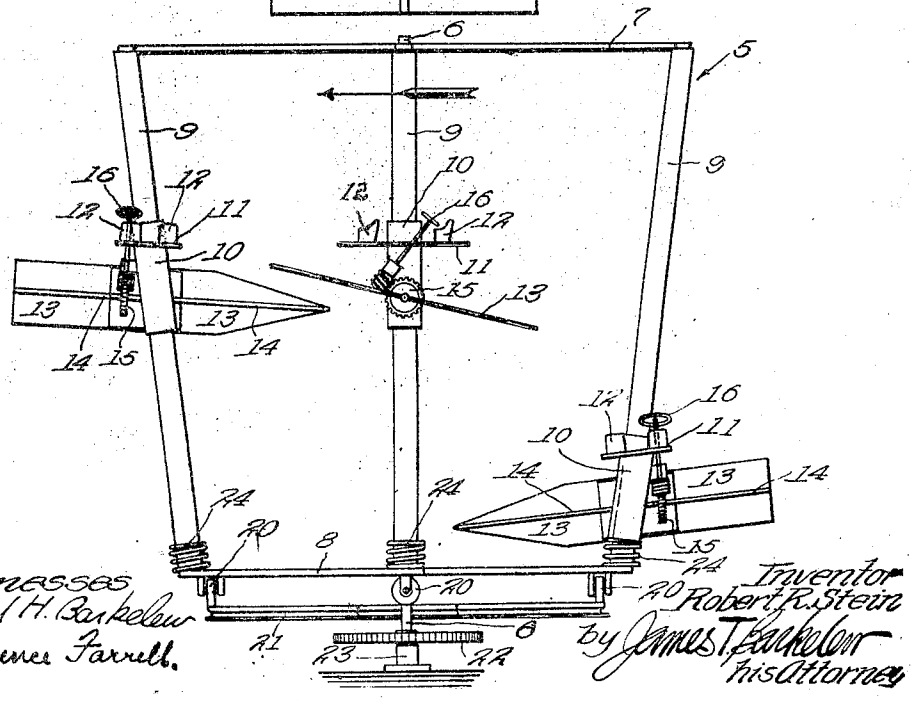


Fig. 2.



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UNITED STATES PATENT OFFICE.

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ROUNDABOUT.

966,134. Specification of Letters Patent. Patented Aug. 2, 1910.

Application filed September 14, 1909. Serial No. 517,594.

To all whom it may concern:

Be it known that I, ROBERT R. STEIN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Roundabouts, of which the following is a specification.

This invention relates to a roundabout in which the principle of the aeroplane is taken advantage of.

Broadly the device consists of a carriage or carriages equipped with a lifting plane in combination with a means for moving the carriages over a track or around a circle while still allowing them to soar aloft under the action of the planes.

The device is capable of many forms but I prefer the one shown in the drawings as it is simple and efficient. In this form a frame work is mounted so that it may be located about a vertical axis, this frame work carrying approximately vertical columns at its outer periphery. The carriages are mounted on these columns so as to slide vertically thereon and the linear velocity of the carriages and the inclination of the lifting planes are so arranged that the carriages will be raised up the columns when the whole frame is revolved. It will be seen that it is possible to mount the columns on any sort of structure which may be moved—such as a car running on a track. This construction may be of great utility in some special cases, but for general use I prefer the form shown in the accompanying drawings, in which,

Figure 1 is a plan view of the device. Fig. 2 is a side elevation of the same with parts broken away.

In the drawings 5 designates a revolving frame centered on a vertical axis 6 and composed of upper and lower frames 7 and 8 which are connected through the medium of columns 9. These columns are preferably square so that sleeves 10 fitted thereon cannot turn out of position. The columns are preferably arranged to project upwardly and outwardly as shown in the drawings. Sleeves 10 each carry a car 11 having seats 12 therein, for the accommodation of passengers. Mounted on the sleeves and beneath the cars are lifting planes 13 pivoted on shafts 14 and adjustable by means of gearing 15 which connects the shafts with a steering wheel 16 located at a convenient point for the manipulation of the car. By means of this wheel the plane may be adjusted to any desired angle so that the height to which the car will rise is under control.

Bottom frame 8 is provided with rollers 20 which travel over a track 21 and afford a solid and stable support for the frame 5. Shaft 6 is rotated through the means of gearing 22, or any other approved means of power transmission, a step bearing 23 being provided for the shaft below the gear.

The whole structure is rotated in the direction indicated by the arrows at an appropriate speed. The occupants of a car may vary the inclination of the plane supporting the car so that the car will be moved upwardly by the pressure on the under side of the planes. When the desired height is reached the inclination of the planes may be altered so that the car will remain at that height. When it is desired to descend the inclination of the planes is again altered and the car will move down the column alighting on a spring 24 placed at the bottom of the column as a precautionary measure.

It will be seen that this invention consists broadly of a vertically extending column capable of being moved and having a car provided with a lifting plane slidably mounted on it. The minor details may be varied to suit individual tastes. In the present showing the columns are sloped upwardly and outwardly so that centrifugal force will aid in moving the car upwardly. This feature, of course, could not be embodied in a device where the column is moved in a straight line but only in the present case where the column is revolved about a vertical axis.

Having described my invention, I claim:—

1. A roundabout, comprising a moving frame, a vertically extending column on the frame, a car adapted to slide up and down the column, and a lifting plane mounted on the car.

2. A roundabout, comprising a rotating frame, a vertically extending column on the frame, a car adapted to slide up and down the column, and an adjustable lifting plane on the car.

3. A roundabout, comprising a frame adapted to rotate about a vertical axis, a plurality of vertically and outwardly extending columns on the frame, a car mounted on each column and adapted to slide

thereon, and lifting planes adjustably mounted on the cars.

4. A roundabout, comprising a frame adapted to rotate about a vertical axis, a plurality of vertically and outwardly extending columns on the frame, and a car mounted on each column and adapted to slide thereon.

5. A roundabout, comprising a movable frame, a vertical member on the frame, a car adapted to slide up and down the vertical member, and means mounted on the car for lifting it by reaction upon the atmosphere.

6. A roundabout, comprising a rotating frame, an approximately vertical member on the frame, a car adapted to slide up and down the member, and means mounted on the car for lifting it by reaction upon the atmosphere.

7. A roundabout, comprising a rotating frame, a vertically extending member mounted on the frame, a car mounted on the member to slide thereon, and means on the car to raise it by reaction on the atmosphere.

In witness that I claim the foregoing I have hereunto subscribed my name this 8th day of September, 1909.

ROBERT R. STEIN.

Witnesses:

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