

(No Model.)

2 Sheets—Sheet 1.

W. SASSACK.
ROUNDAABOUT.

No. 384,393.

Patented June 12, 1888.

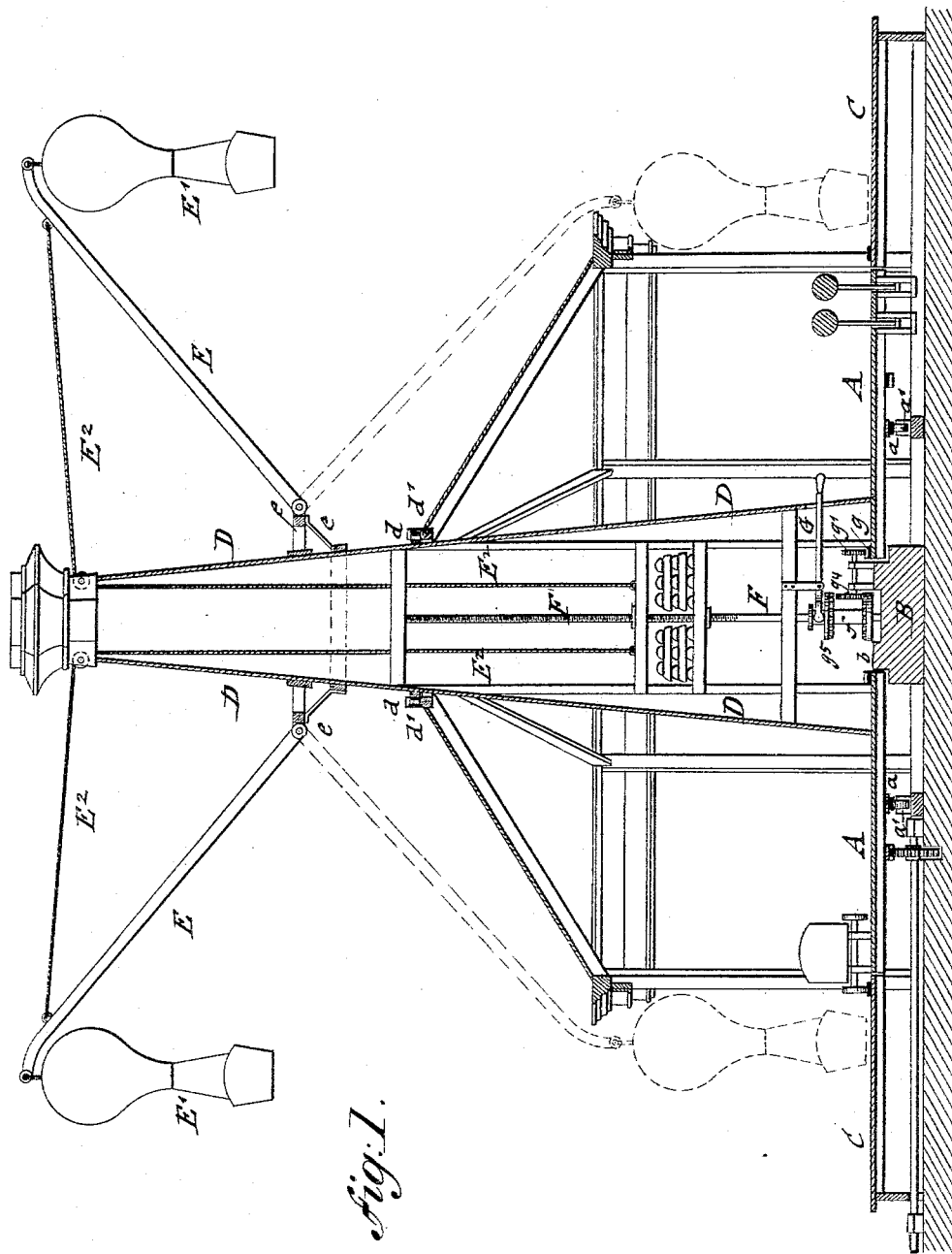


Fig. 1.

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Fig. 2.

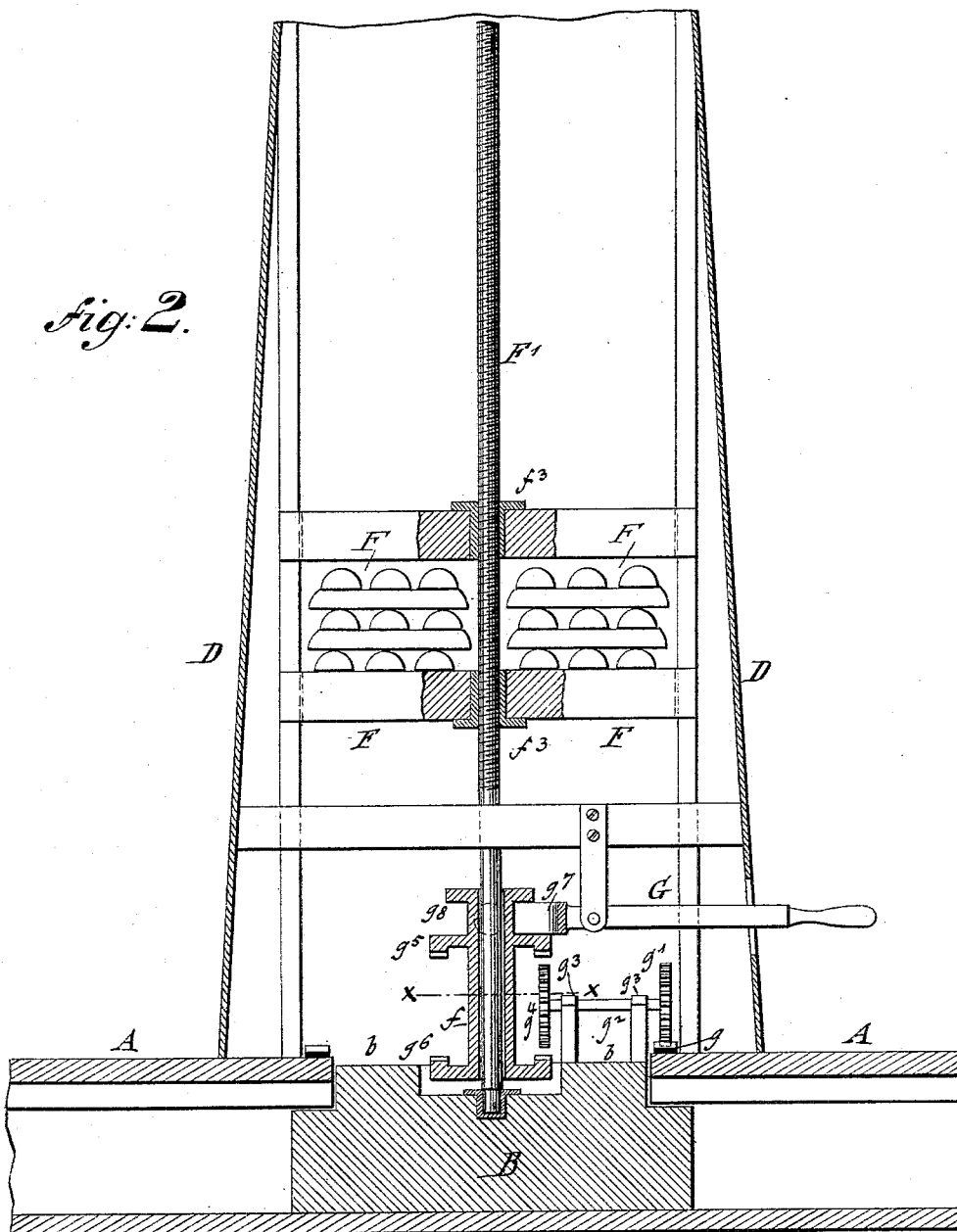
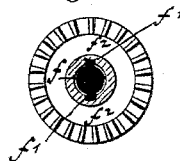


Fig. 3



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UNITED STATES PATENT OFFICE.

WILLIAM SASSACK, OF BROOKLYN, NEW YORK.

ROUNABOUT.

SPECIFICATION forming part of Letters Patent No. 384,393, dated June 12, 1888.

Application filed September 20, 1887. Serial No. 250,172. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SASSACK, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Roundabouts, of which the following is a specification.

This invention relates to certain improvements in the roundabout for which Letters Patent were granted to me, No. 314,881, dated March 31, 1885, said improvements being designed for the purpose of making the construction stronger and safer, and facilitating the raising and lowering of the balloon-shaped carriers that rotate with the platform and central tower of the roundabout; and the invention consists of a roundabout composed of a rotary platform, a tower at the center of said platform, oscillating arms pivoted to said tower, balloon-shaped carriers supported on the outer ends of said arms, a balancing cage guided in said tower, ropes connecting the carrier-arms with said cage, a vertical screw engaging nuts of said cage, gearing for imparting rotary motion to said screw, and a clutch mechanism for starting or stopping the screw and producing the raising and lowering of the carriers, as will appear more fully hereinafter, and finally be pointed out in the claims.

In the accompanying drawings, Figure 1 represents a vertical central section of my improved roundabout. Fig. 2 is a vertical central section of the tower, showing the mechanism for raising and lowering the balloon-shaped carriers, drawn on a larger scale; and Fig. 3 is a detail horizontal section on line *x* *x*, Fig. 2, showing the connection of the clutch-sleeve with the screw by which motion is transmitted to the cage.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a platform, which is rotated by suitable power and transmitting mechanism, it being supported by a circular rail, *a*, on rollers *a'*, turning in fixed bearings. At the central part of the platform is arranged an opening, *b*, through which rises a stationary center block, B. The movable platform A is surrounded by a stationary platform, C, from which the persons that desire to ride in the roundabout can readily step on the

horses, carriages, and other bodies on the movable platform.

At the center of the rotary platform A is arranged a tower, D, which rotates with the platform, the upper part of the tower being guided and steadied by anti-friction rollers *d d* on a ring-shaped way, *d'*, supported by the roof of the roundabout, as shown in Fig. 1. To that part of the tower D extending above the roof are applied suitable brackets, *e*, to which are pivoted arms E, from the outer ends of which are suspended balloon-shaped carriers E', in the baskets of which seats are arranged. The arms E are connected by ropes E', that pass over pulleys *e'* at the upper end of the tower D in downward direction to a vertically-reciprocating and weighted cage, F, located in the interior of the tower. Iron blocks or disks are inserted between the timbers of the cage F, said blocks or disks being of sufficient weight to properly balance the carriers and connect the carriers E' and their supporting mechanism.

The weighted cage serves to balance the carriers E' and to impart a vertical up-and-down motion to the arms and carriers suspended therefrom. When the carriers have arrived at their highest or lowest position, the motion of the cage is stopped, so that in one case the carriers rotate with the tower, while in the other case the persons in the same can either step into the basket of the carrier or alight from the same, as the case may be.

A vertically-reciprocating motion is imparted to the cage F in a positive manner by a screw, F', which turns in a step-bearing of the stationary center block, B, and in bearings at the upper part of the tower D. To the lower smooth part of the screw F is applied a clutch-sleeve, *f*, which is provided with grooves *f'* at diametrical opposite points, said grooves forming seats for the tongues or splines *f''*, by which the sleeve is connected to the screw F', so that it can slide up and down on the lower part of the screw while it turns axially with the same. The braces of the cage F are provided at their center with screw-nuts *f''*, that are engaged by the threads of the screw, so that the cage traverses up or down on the same, according as the screw is turned in one or the

opposite direction. Rotary motion is transmitted to the clutch-sleeve *f* and screw *F* by a circular rack, *g*, at the inner edge of the movable platform A, said rack engaging a gear-wheel, *g'*, on a shaft, *g''*, which is supported on fixed bearings *g'''* of the stationary block B. A second gear-wheel, *g''*, at the inner end of the shaft *g''*, meshes either with a crown-wheel, *g''*, at the upper or with a crown-wheel, *g''*, at the lower end of the clutch sleeve, according as it is raised or lowered by a hand-lever, *G*, that is fulcrumed to a fixed hanger of the frame of the tower D. The inner forked end, *g''*, of the lever *G* engages a collar, *g''*, at the upper end of the clutch-sleeve, while the outer end extends through a slotted opening of the tower D to the outside of the same. By lifting the outer end of the lever *G* the upper crown-wheel, *g''*, of the clutch-sleeve *f* is thrown into mesh with the gear-wheel *g''*. The platform A is now started and the screw turned in one direction, so as to cause the lowering of the cage and the raising of the carriers into the position shown in full lines in Fig. 1. When the carriers arrive at their highest position, the clutch is ungeared, so that the motion of the screw is stopped and the carriers are rotated with the platform. The persons in the baskets of the carriers enjoy thereby the motion of the roundabout at an elevated position.

Before the roundabout is stopped the carriers are lowered, the persons alighting from the baskets of the carriers when the platform arrives at rest. The lowering motion of the carriers is accomplished by moving the lever *G* downward and throwing the lower crown-wheel, *g''*, of the clutch-sleeve *f* into gear with the gear-wheel *g''*, whereby rotary motion is imparted to the screw in a direction opposite to its former motion, and thereby an ascending motion given to the cage and a descending motion to the supporting-arms and carriers. By the clutch mechanism and operating-lever the motion of the carriers is fully within control. By the vertically-reciprocating motion imparted to the cage by the screw, nuts, and transmitting-gearing a positive, safe, and steady motion is imparted to the carriers, which is an essential requisite of a roundabout

of this type, as otherwise the persons in the baskets of the carriers would be frightened, so as not to use the roundabout again, nor recommend it to others.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a stationary center block, a rotary platform, a tower supported on said platform, arms pivoted to said tower, carriers suspended from the arms, a vertically-traversing and weighted cage guided in said tower, ropes connecting the arms with said cage, a screw supported in bearings of the center block and the frame of the tower, said screw engaging fixed nuts of the cage, gearing for transmitting rotary motion from the platform to the screw, and a clutch mechanism by which said screw is thrown in or out of gear with the motion transmitting gearing, so as to raise or lower the cage and thereby lower or raise the carriers, substantially as set forth.

2. The combination of a stationary center block, a rotary platform, a fixed platform concentric to the rotary platform, a tower supported on the rotary platform, arms pivoted to said tower, carriers suspended from said arms, a vertically-traversing and weighted cage guided in said tower, ropes connecting the arms with the cage, a screw supported in bearings of the center block and of the frame of the tower, said screw engaging fixed nuts of the cage, a clutch-sleeve splined to the screw and provided with a crown-wheel at each end, gearing for transmitting rotary motion from the movable platform to the clutch-sleeve and screw, and a lever for moving the clutch-sleeve, so that either one of the crown-wheels is thrown in mesh with the gearing, according as the motion-transmitting screw is to be turned in one or the opposite direction, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

WILLIAM SASSACK.

Witnesses:

PAUL GOEPEL,
CARL KARP.