(No Model.)

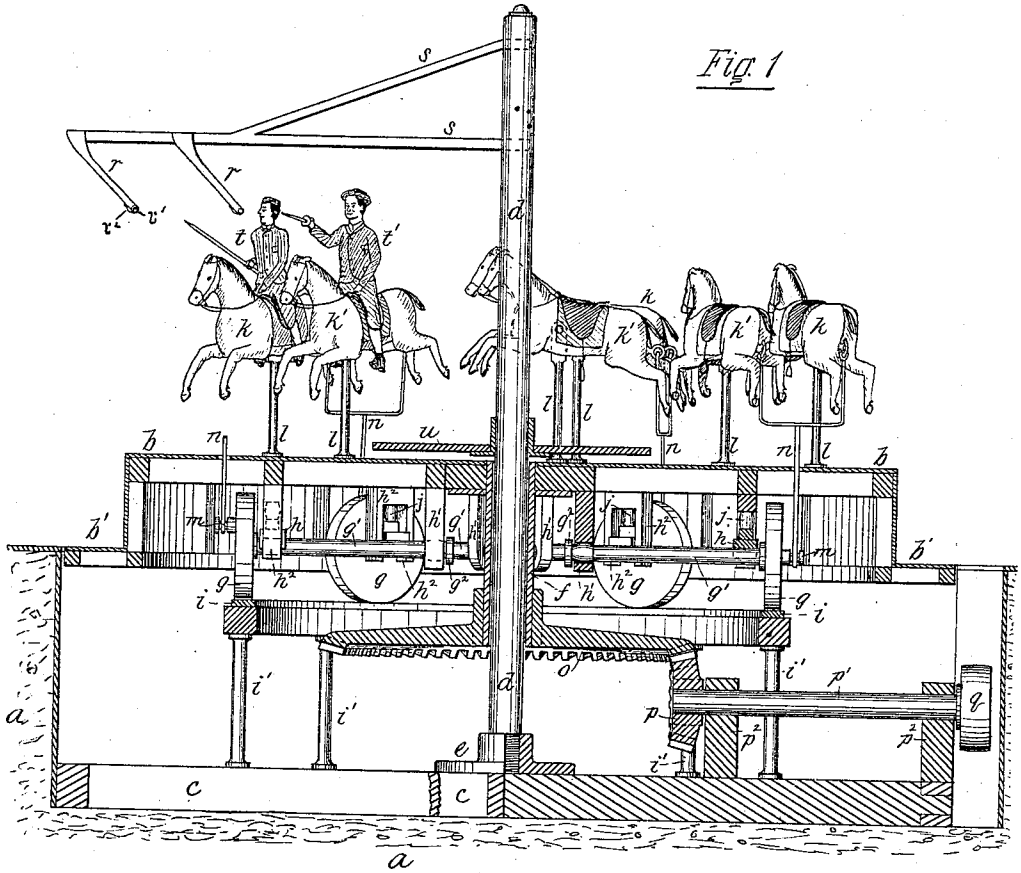
2 Sheets—Sheet 1.

G. BUNGARZ.

ROUNDABOUT.

No. 326,474. Patented Sept. 15, 1885.

Fig. 1



Witnesses

H. D. Williams

A. G. Holcombe

Gottfried Bungarz.

Inventor

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Atty.

(No Model.)

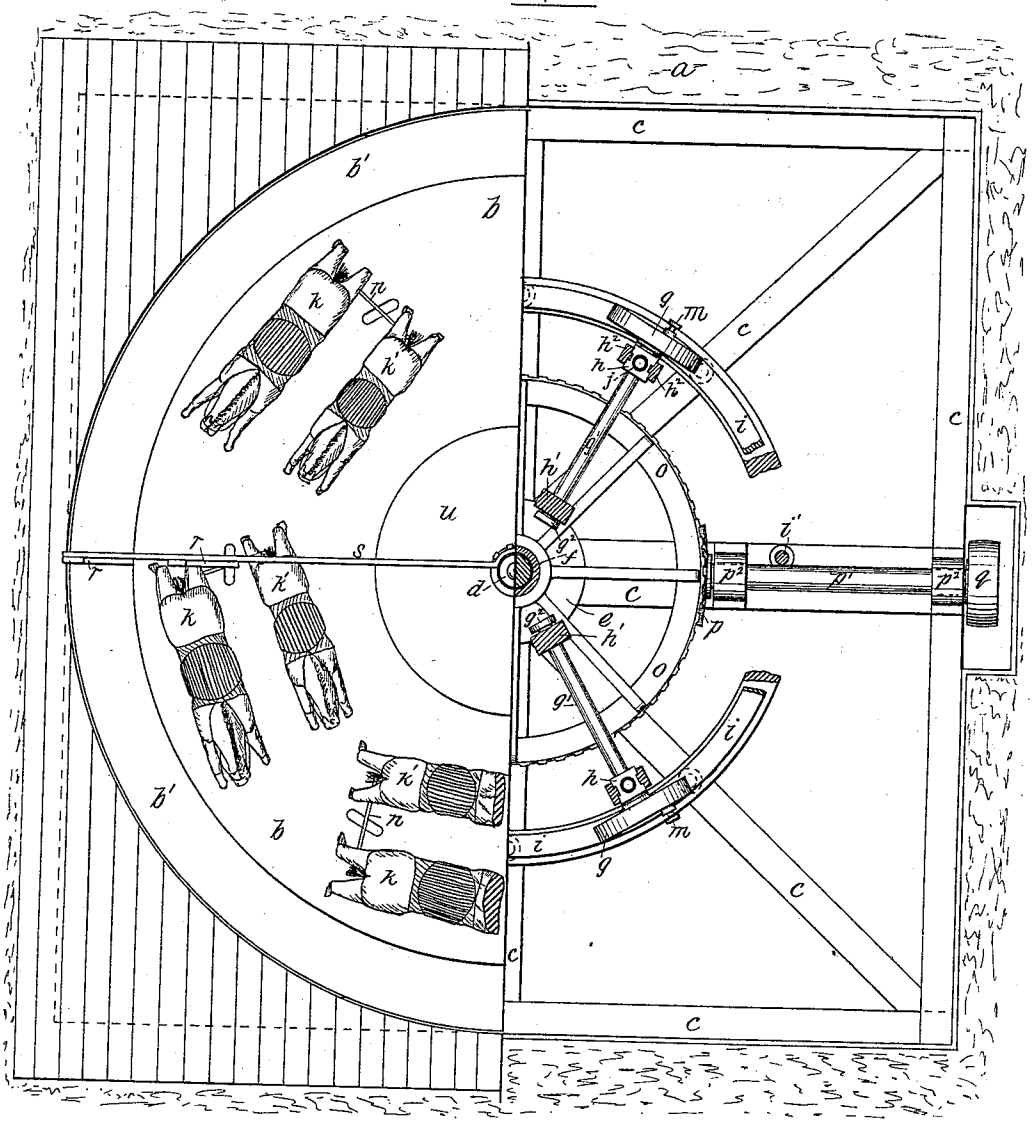
2 Sheets—Sheet 2.

G. BUNGARZ.

ROUNDABOUT.

No. 326,474. Patented Sept. 15, 1885.

Fig. 2



Witnesses

H. D. Williams

A. G. Holcombe

Gottfried Bungarz

Inventor

per Alfred Shedlock

atty.

UNITED STATES PATENT OFFICE

GOTTFRIED BUNGARZ, OF BROOKLYN, NEW YORK.

ROUNDABOUT.

SPECIFICATION forming part of Letters Patent No. 326,474, dated September 15, 1885.

Application filed November 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, GOTTFRIED BUNGARZ, a citizen of the United States, and a resident of Brooklyn, county of Kings, State of New York, have invented certain new and useful Improvements in Roundabouts, of which the following is a specification.

This invention relates to that class of amusement appliances known as "merry-go-rounds" or "roundabouts," in which a rotating platform carries various devices, as imitations of animals, &c., to be occupied or ridden by the participants in the amusement; and it has for its object to simplify the construction, to reduce the power required to operate the same, to impart a more natural motion to the moving objects, and to increase the capacity by making all the moving objects available for other sports used in conjunction with such appliances.

To more fully describe the construction and operation of my improved roundabout, I will now refer to the accompanying drawings, in which—

Figure 1, Sheet 1, is a central sectional elevation of my improved roundabout, and Fig. 2, Sheet 2, is a plan view of the same, half in section.

As will be seen from the drawings, a pit is formed in the ground *a*, and the roundabout fixed therein so that the platform *b* or its outside step, *b'*, is level with the surface of the ground. In the bottom of the pit is placed the heavy timber frame *c*, to the center of which is secured the vertical post or shaft *d* by means of its flange *e*. This shaft *d* acts merely as a central guide for the platform *b*, to which is secured the sleeve *f*, made so as to rotate freely on the shaft *d*, said platform being supported by the series of wheels *g*, secured to the radially-arranged shafts *g'*, which fit in bearings *h* and *h'*, secured to the under side of the platform. The wheels *g* rest on the circular track *i*, supported by posts *i'* from the timber frame *c*. To allow for irregularities of fitting, and to insure the rotation of all of the wheels *g*, by frictional contact with the track *i*, the outside bearings, *h*, are preferably made so as to have a slight vertical movement by being fitted in guides h^2, and springs *j* are placed on the tops of the bearings and the platform *b* supported thereby, the play of said springs being only sufficient to equalize on all the supporting-wheels the pressure due to the load carried, as the rotation of said wheels is utilized to impart an oscillating motion to the imitation animals *k k'* as they travel around with the platform. To allow for this independent vertical movement of the wheels *g*, the inner journals of the axles *g' g'*, working in the bearings *h' h'*, are made slightly spherical, as shown. The collars g^2 g^2 hold the axles and wheels in position. This novel feature, by which the objects carried by the platform are caused to imitate the natural movements of the objects or animals represented, is accomplished by pivoting said objects at or near their central parts to standards *l l*, projecting upwardly from the platform *b*, and connecting them at their rear ends to the crank-axles *m m* on the free front sides of the wheels *g g* by means of the connecting-rods *n n*, which pass through openings in the platform. These connecting-rods are bifurcated at their upper ends, and connected to each of the animals *k k'* of the pairs arranged around the platform. When one series or set of animals or objects is carried by the platform, then the connecting-rods *n* will have only one upper connection.

By supporting on the wheels *g g* the platform and load a minimum power is required to operate the roundabout, which power is applied thereto through the medium of the bevel-wheel *o*, secured to the lower end of the sleeve *f*, and the bevel-pinion *p*, meshing therein, secured to the shaft *p'*, fitted in standard-bearings p^2, and on the end of which is shown a pulley, *q*, to be connected by a belt to the source of power. The driving mechanism is thus out of sight, and, if desired, the motor may be placed underground, or the driving-belt extend from above through an opening to the pulley *q*.

A stationary platform, *b*, is secured to the guide-shaft *d* above the rotating platform for the occupation of attendants and others.

The ring-tilting attachment consists of tubes *r*, in which rings are placed, the lower ring, *r'*, projecting, as shown, from the mouth of the tube, but held in place by a spring, r^2, until forcibly detached by means of a sword or spear carried by the riders, which allows the

succeeding ring to fall against the spring r^2. The object of such sport, as now practiced, is, while adding to the amusement of the riders, to give such rider as is lucky or expert enough to catch a ring or the greatest number of rings a free ride. By my arrangement two ring-tubes are secured to the arm *s*, projecting from the central shaft, *d*, and are so located, one within reach of each of the riders of the outside animals, *k*, as *t*, and the other within reach of the rider of the inside animals, *k'*, as *t'*.

The fixed central shaft may also be utilized to support a light awning to protect the apparatus and riders from the weather.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a roundabout, the combination, with a rotating platform carrying objects or imitation animals, &c., and a fixed vertical guide-shaft on which the platform rotates, of ring-tilting attachments secured to an arm projecting from the fixed guide-shaft and located above the objects carried by the platform, substantially as set forth.

2. In a roundabout, in combination, the platform *b*, the supporting-wheels *g g*, provided with crank-axles *m m*, the bifurcated connecting-rods *n n*, and the imitation animals *k k'*, pivoted on the standards *l l*, projecting from the platform *b*, substantially as set forth.

3. In a roundabout, in combination, the platform *b*, the supportirg-wheels *g g*, provided with crank-axles *m m*, the bifurcated connecting-rods *n n*, the imitation animals *k k'*, pivoted on the standards *l l*, projecting from the platform *b*, the fixed guide-shaft *d*, projecting arm *s*, and ring-tilting attachments *r r*, substantially as set forth.

In testimony whereof I have hereunto set my hand at New York, county and State of New York, this 15th day of November, 1884.

GOTTFRIED BUNGARZ.

Witnesses:

ALFRED SHEDLOCK,

H. D. WILLIAMS.