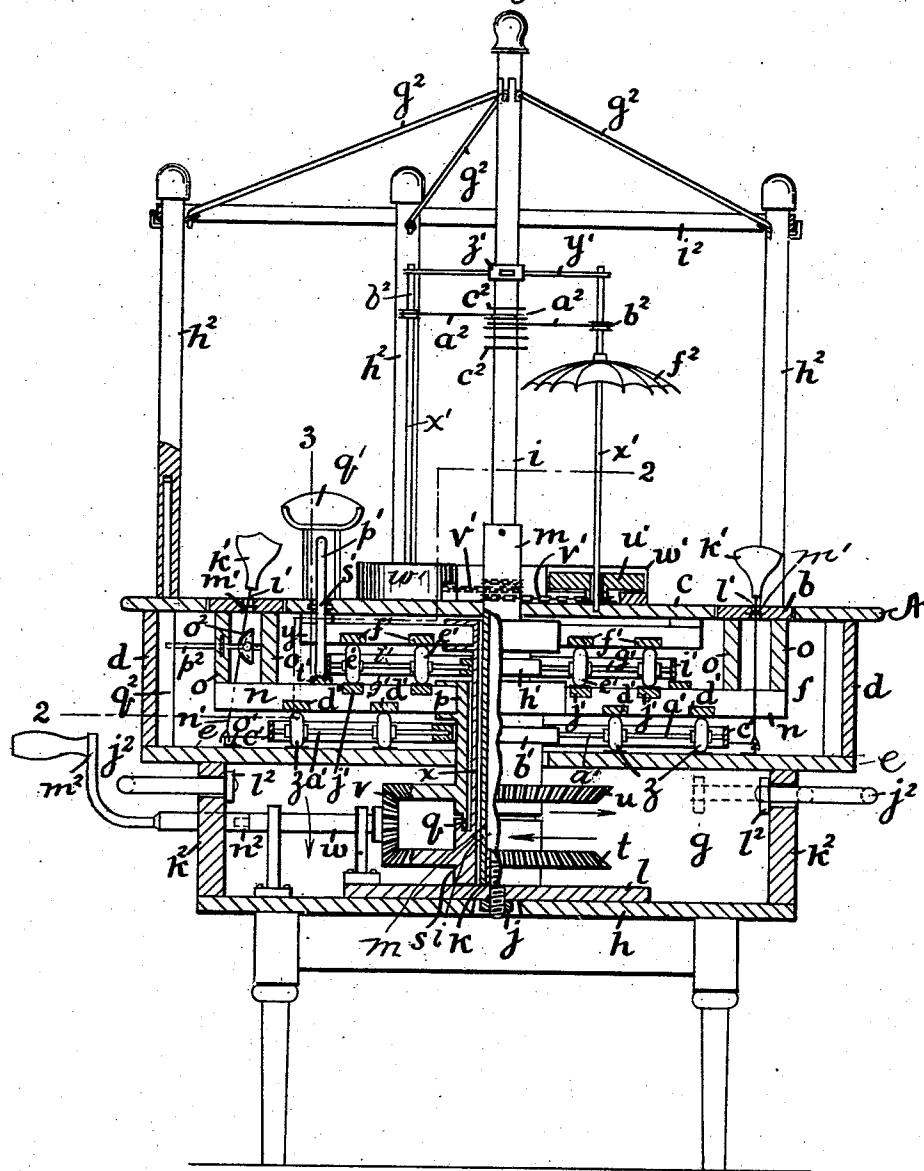


O. OLSON & J. A. JOHANSON.
MERRY-GO-ROUND.

No. 572,712.

Patented Dec. 8, 1896.

Fig. 1.



Witnesses.

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

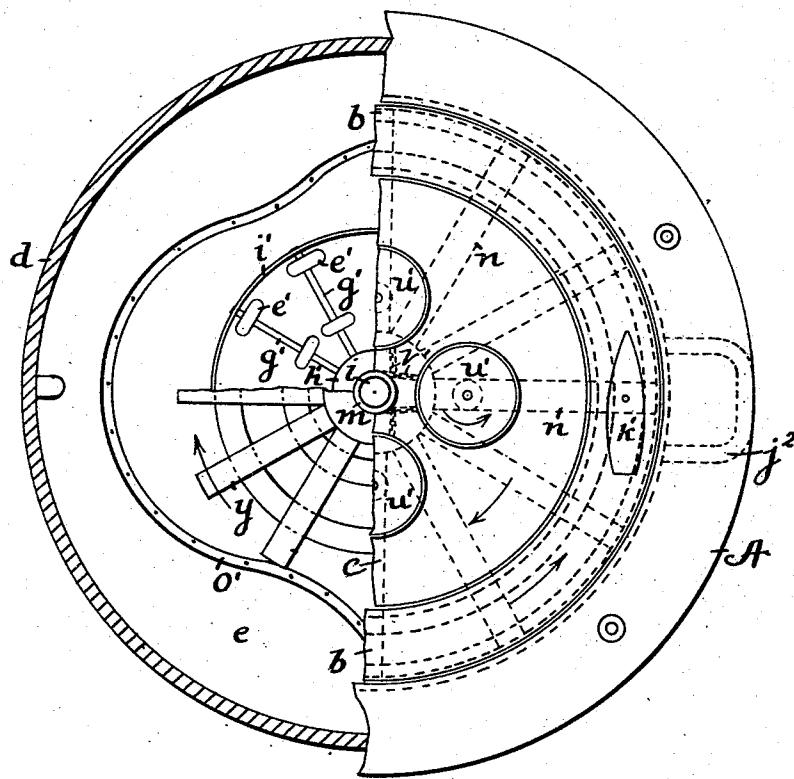
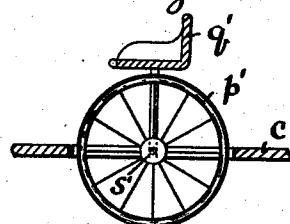


Fig. 3.



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UNITED STATES PATENT OFFICE.

OLAUS OLSON AND JOHAN AUGUST JOHANSON, OF BROOKLYN, NEW YORK.

MERRY-GO-ROUND.

SPECIFICATION forming part of Letters Patent No. 572,712, dated December 8, 1896.

Application filed October 17, 1895. Serial No. 565,940. (No model.)

To all whom it may concern:

Be it known that we, OLAUS OLSON, a subject of the King of Sweden and Norway, and JOHAN AUGUST JOHANSON, a citizen of the 5 United States, both residents of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Merry-Go-Rounds, of which the following is a specification.

10 The invention consists of improved merry-go-round apparatus comprising two or more horizontal rotating platforms and other adjuncts moving in opposite directions, as hereinafter described, reference being made to 15 the accompanying drawings, in which—

Figure 1 is a sectional elevation of our improved apparatus, which is indicated in this example as of diminutive size, as it may be made for a toy or for display purposes in 20 show-windows; but it is intended also for larger sizes adapted for the general purposes of such contrivances. Fig. 2 represents plan views of parts in different horizontal planes indicated by line 2 2, Fig. 1. Fig. 3 is a detail on section 3, Fig. 1.

25 A represents a stationary floor surrounding a circular space in which is an annular rotating platform *b*, within which is a central rotating disk *c*, all in the same horizontal plane.

The floor *A* is supported on the curb, or it may be a wall *d*, extending above a floor *e* and inclosing a chamber *f*, below which is another chamber, or it may be a pit *g* in the 35 ground. From the center of the floor *h* of the chamber or pit *g* a stationary shaft *i* extends upward a suitable height, said shaft being secured by a nut *j*, screwed on it below, and a shoulder *k*, bearing above the bed-plate 40 *l*, resting on the floor *h*. A sleeve *m*, surrounding this shaft and extending from the lower end to a suitable height above the disk *c*, is employed for sustaining the wear of the operating parts centered on the shaft, said 45 sleeve being readily removable for renewal when required, thus saving the renewal of the shaft if subject to the wear, which would be more expensive.

The annular platform *b* is carried on the 50 rotating spider *n*, whereon it is supported by the standards *o*, and the spider is carried on the hollow shaft *p*, having a step-bearing at

q in the hubs of the bevel-wheel *t*, having its support on the bed-plate *l*. The sleeve *p* also carries a bevel-wheel *u*, these two wheels being 55 geared with the bevel-pinion *v* on the driving-shaft *w*, so that they revolve in opposite directions. From the hub *s* of wheel *t* a hollow shaft *x* extends upward within shaft *p* and surrounding sleeve *m* and carries the 60 spider *y* above spider *n* and carrying the disk *c*, said disk and platform *b* turning in opposite directions correspondingly with the reverse movements of wheels *t* and *u*.

Carrying-rolls *z* are arranged between 65 spider *n* and floor *e* to relieve the shaft *p* of the weight, said rolls having axles *a'* radiating from a collar *b'* on shaft *p* and at the outer extremities connected with a ring *c'*. The spider *n* has ring-rails *d'* bearing on the rolls. 70 The collar *b'* is adapted to turn independently of the shaft *p*. Spider *y* is in like manner supported on carrying-rolls *e'* by ring-rails *f'*, said rolls being similarly mounted on radiating axles *g'* of a collar *h'* and connected at 75 the outer ends with a ring *i'*, and the spider *n* has rails *j'* for supporting the rolls *e'*.

The platform *b* and the disk *c* are provided with various forms of benches, seats, or other devices for carrying riders, as persons or figures or goods, some of which may be constructed in the form of boats *k'*, which we provide with a keel-like support *l'*, pivoted in the platform at *m'* and extending downward therefrom at *n'* to and suitably connected 80 with a sinuous guide-rail *o'* on the floor *e*, by which rocking motion is imparted to the boats when being carried on the platform. The disk *c* carries one or more wheels *p'* with a seat *q'* in suitable relation to it to represent 85 in some measure a velocipede, the wheel being pivoted at *s'* and rolling on a rail *t'*, carried on the spider *n*. Said disk also carries a series of horizontal disks *u'*, located in a circle around the center shaft and geared by 90 chains *v'* with the stationary sleeve *m*, so that as they are carried around the shaft of the disk they will also be rotated on their own axis by the chains. The said disks are preferably inclosed in curbs *w'*, and they will in 95 practice have seats or be otherwise adapted for carrying figures for exhibition or persons for pleasure.

From the center of each disk *u'* a vertical

shaft x' extends upward to a bearing in an arm y' , projecting from a collar z' , adapted to turn on shaft i in unison with the movements of the shafts x' around shaft i , and these shafts x' are geared with shaft i by belts a^2 and pulleys b^2 so as to be rotated on their own axis also, and they are preferably arranged to rotate reversely to the directions in which the disks u' rotate. The collars c^2 on the shaft i keep the belts a^2 in position and prevent them from interfering with each other.

The shafts x' are each provided with a sun-shade or umbrella top f^2 for ornamentation. The upper end of the center shaft i is stayed by braces g^2 and posts h^2 , the latter being set up on the permanent floor A, and the posts h^2 are coupled by a ring i^2 at the top for stability.

When constructed in small sizes for toy or show purposes, handles of any approved kind, as staples of round iron j^2 , will be attached to the base k^2 for convenience in moving the apparatus about, and said handle may be applied so as to be shoved inward out of the way when not in use, the inner ends of the prongs having nuts l^2 or other stops to limit their projection outward for use. In this example we represent a crank m^2 as the means of turning the driving-shaft w , and indicate a detachable connection at n^2 for removal of the crank as a protection against unauthorized use.

o^2 represents a bell carried by one of the standards o , and p^2 a hammer carried by another of said standards, with a spur q^2 of the curb d to raise the hammer and cause the bell to be struck when passing the spur.

For more than one stroke of the bell to each revolution more spurs q^2 will be applied.

We claim—

1. The combination of the central stationary shaft i , stationary floor e , chambers f and g , above and below said floor respec-

tively, hollow shaft x surrounding the stationary shaft, spider y and disk c carried by said shaft; the hollow shaft p surrounding shaft x and having a step-bearing on the hub of shaft x , spider n and annular platform b , carried by said spider, and the bevel-wheels t , u , and pinion v in chamber g and gearing said shafts with the driving-shaft substantially as described.

2. The combination of the central stationary shaft i , hollow shaft x surrounding said stationary shaft, hollow shaft p surrounding and having a step-bearing on shaft x , spiders n and y carried on said shafts p and x respectively, carrying-rolls z and e' supporting said spiders respectively, radial axles and collars, and the rings controlling said rolls said spiders having the rails running on the rolls all substantially as described.

3. The combination of the stationary shaft i , detachable sleeve m surrounding said shaft, wheel t having its support on the bed-plate, hollow shaft p having a step-bearing on the hub of said wheel t , spider n carried on shaft p , annular platform b supported by standards o , on said spider, bevel-wheel u on sleeve p , said wheels t , and u geared with the driving-pinion v for turning reversely to each other, the hollow shaft x extending upward within shaft p and surrounding sleeve m , the spider y mounted on said shaft x above spider n , and the disk c mounted on said spider n in the plane of annular platform b , all constructed and operating substantially as described.

Signed at Brooklyn, in the county of Kings and State of New York, this 3d day of May, A. D. 1895.

OLAUS OLSON.

JOHAN AUGUST JOHANSON.

Witnesses:

W. J. MORGAN,

A. P. THAYER.