

(No Model.)

2 Sheets—Sheet 1.

W. D. CRONIN & C. B. ADAMS.  
MERRY-GO-ROUND.

No. 445,134.

Patented Jan. 20, 1891.

FIG. 1.

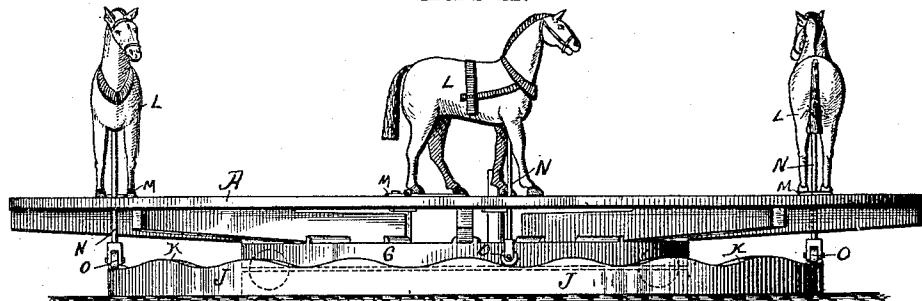
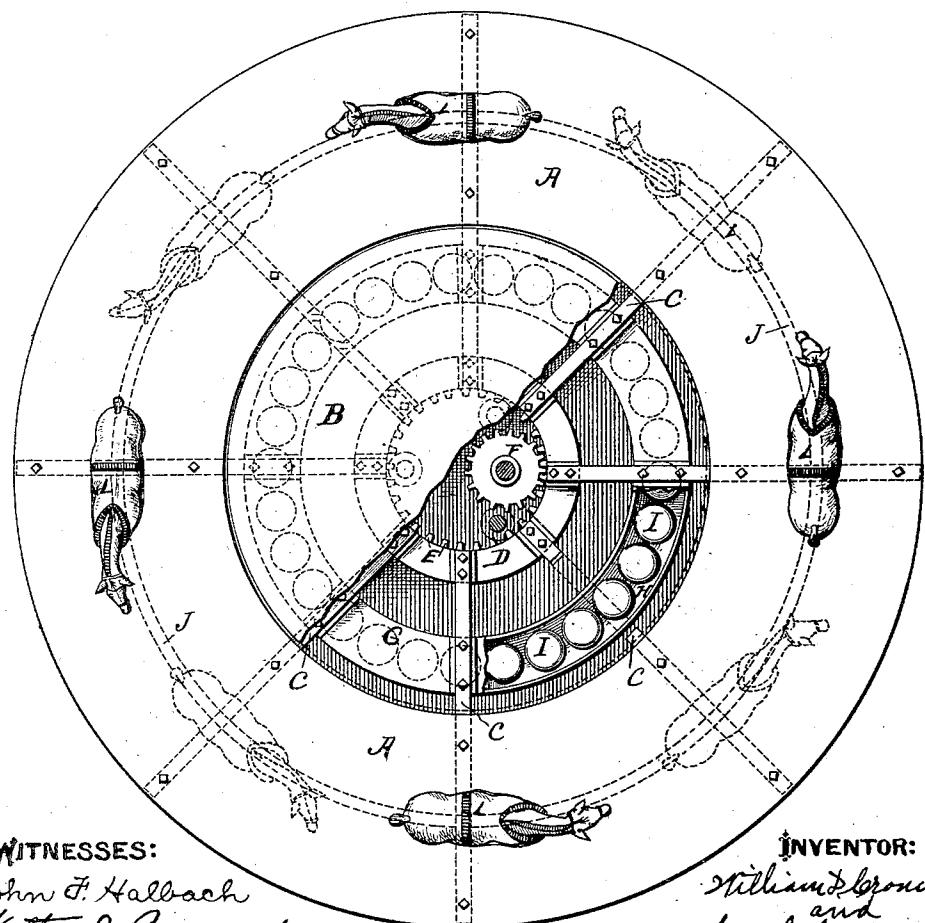


FIG. 2.



WITNESSES:

John F. Hallach  
Walter J. Raymond

INVENTOR:

William Cronin  
and  
Cyril B. Adams  
by their attorney  
Walter H. Calhoun

(No Model.)

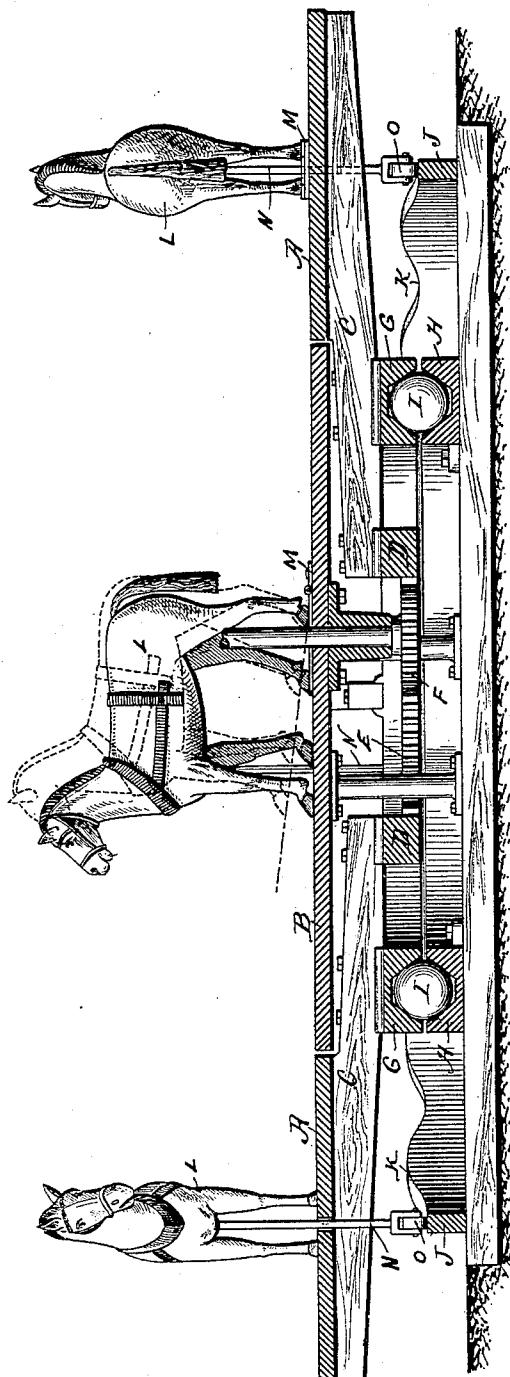
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FIG. 3.



WITNESSES:

John F. Halbach  
Walter D. Raymond

INVENTOR:

William D. Cronin  
and  
Cyril B. Adams  
by their attorney  
Walter D. Raymond

# UNITED STATES PATENT OFFICE.

WILLIAM D. CRONIN AND CYRIL B. ADAMS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, TO SAID CRONIN AND GEORGE L. HORN, OF SAME PLACE.

## MERRY-GO-ROUND.

SPECIFICATION forming part of Letters Patent No. 445,134, dated January 20, 1891.

Application filed March 5, 1890. Serial No. 342,800. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM D. CRONIN and CYRIL B. ADAMS, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Merry-Go-Rounds, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to improvements in merry-go-rounds; and the object of our invention is, first, to furnish in a merry-go-round a means by which the animals, in addition to their movement of rotation about the axis of the machine, will be given a movement perpendicular to the floor of the machine, and, second, to furnish an improvement in the means for supporting the revolving platform of the machine.

In the drawings, Figure 1 is a side elevation of our merry-go-round; Fig. 2, a plan, partly in section, of the same; and Fig. 3, an enlarged central sectional elevation of the same.

A is the outer or revolving platform of the merry-go-round, and B the inner or stationary platform. The revolving platform A is carried by radial arms C, the inner ends of which are bolted to a hub D, the interior of which is furnished with teeth E, with which a toothed wheel F gears and by means of which and an engine or other convenient source of power (not shown) the hub D, the radial arms C, and the platform A may be driven.

G is a circular channel-shaped casting or track bolted to the arms C, and H a similar casting or track suitably secured to the floor or ground. In this latter are placed a number of balls I, and the track G rests upon these balls, as shown in Fig. 3. These balls carry the weight of the platform A and its attached parts, and when this platform is revolved the balls turn with it, and the friction is thus reduced to a minimum, and by arranging the tracks with the grooves facing each other and placing the balls within the grooves lateral displacement of the platform

is prevented, as before this can happen the entire platform must be raised sufficiently to let the balls out of the lower channel or groove and also let the lowermost edge of the upper track pass over the tops of the balls.

Instead of but one pair of tracks, as we have shown, two or more pairs and their balls may be used.

The animals carried by platform A have not only a movement around with this platform, but are also given a vertical movement, so as to have the appearance of running. This vertical movement is given as follows:

J is a circular track bolted or otherwise secured to the floor or ground, and the underside of which is made with a number of curves or cams K, as shown in Figs. 1 and 3. The animals L have their hind legs secured to the platform A by hinges M, and from their forward parts a rod N extends downward through the platform A, and is furnished at its lower end with a roller O, which rests upon the top of the track J. As the platform is revolved it carries around with it the animals, and as the roller O is drawn over the curves or cams on the top of track J the animals are moved up and down and an appearance as of running is given to them.

In the drawings we have shown but one row of animals; but in practice two or more rows may be mounted upon the platform A.

The animals are constructed of cast-iron, which makes them less expensive than if made of wood and much more durable.

By our arrangement of parts we are enabled to place the merry-go-round either out of doors or in a room with a low ceiling, as in practice the platform A need only be elevated ten or twelve inches above the floor, and it is not necessary to do any excavating in order to erect the machine, as the several tracks may be simply laid upon the floor and the upper part of the machine placed upon them, as shown in the drawings.

We claim as new and desire to secure by Letters Patent—

1. In a merry-go-round, the combination, with radially-arranged arms, of a revolving platform secured to said arms at their outer

portions, a hub secured to the inner ends of the arms, a circular grooved track secured to the under side of the arms, a correspondingly-grooved track beneath the first track, balls running in the grooves of the said tracks, and a stationary platform within the revolving platform and over the hub and the inner ends of the arms, substantially as described.

2. In a merry-go-round, the combination, 10 with a revolving platform, of the animals or supports for the riders, arranged thereon in a circle, each of said supports being hinged to the platform at one end, a circular cam-shaped track below the platform, a rigid rod for each

support passed down through the platform 15 and guided thereby, the upper end of said rod being attached to the support, and a roller journaled in the lower end of each rod, which travels upon the track, substantially as described.

20 In testimony whereof we affix our signatures in the presence of two witnesses.

WILLIAM D. CRONIN.  
CYRIL B. ADAMS.

Witnesses:

JOHN F. HALBACH,  
WALTER W. CALMORE.