J. W. ARMITAGE.

AMUSEMENT APPARATUS.

APPLICATION FILED NOV. 12, 1908.

932,089. **Patented Aug. 24, 1909.**

2 SHEETS—SHEET 1.

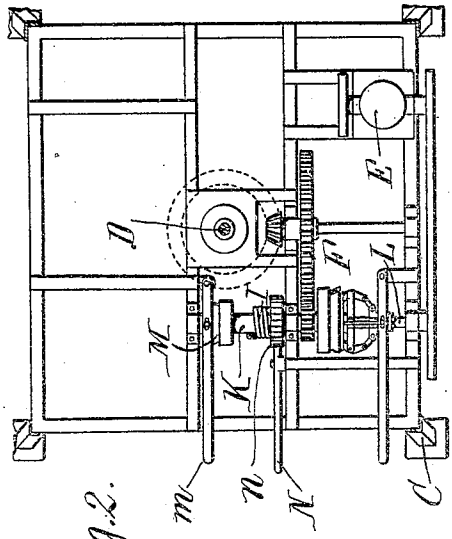

Fig. 2.

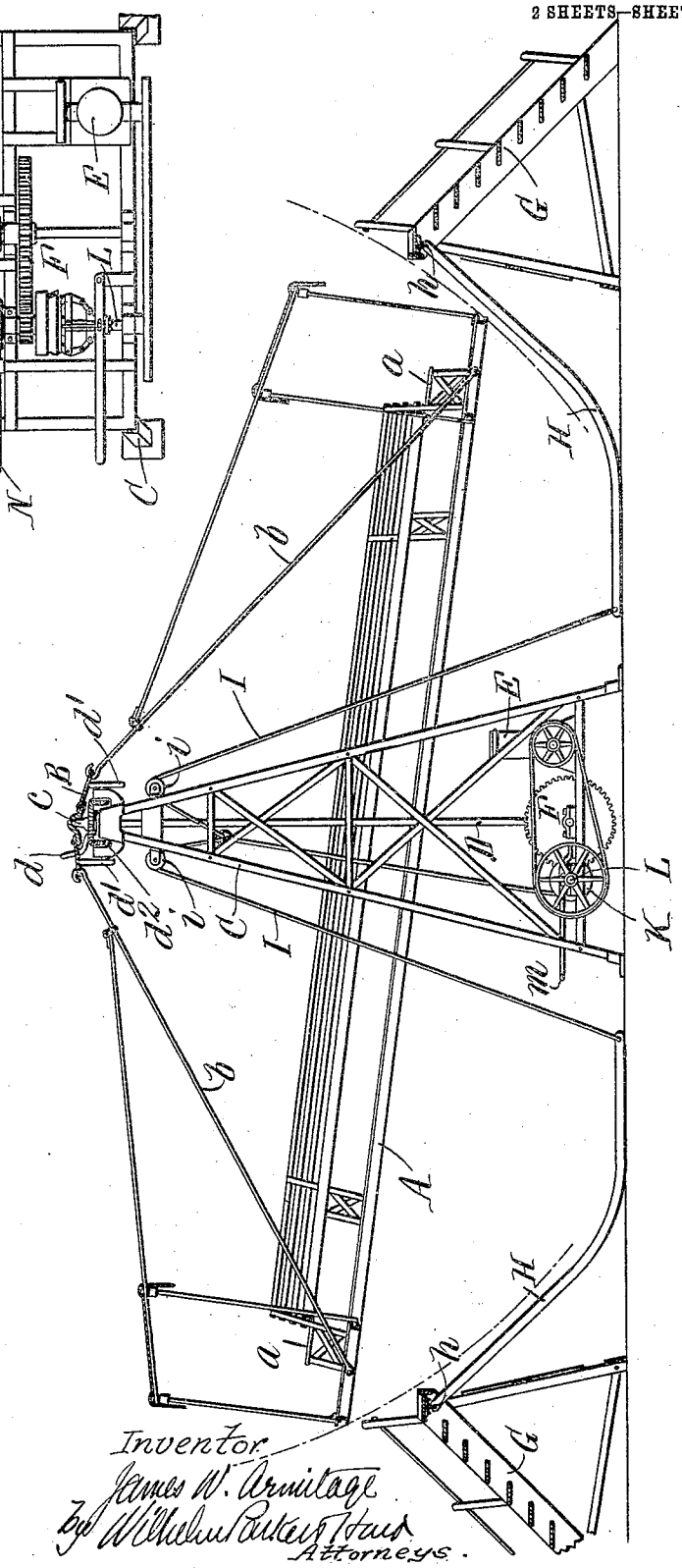

Fig. 1.

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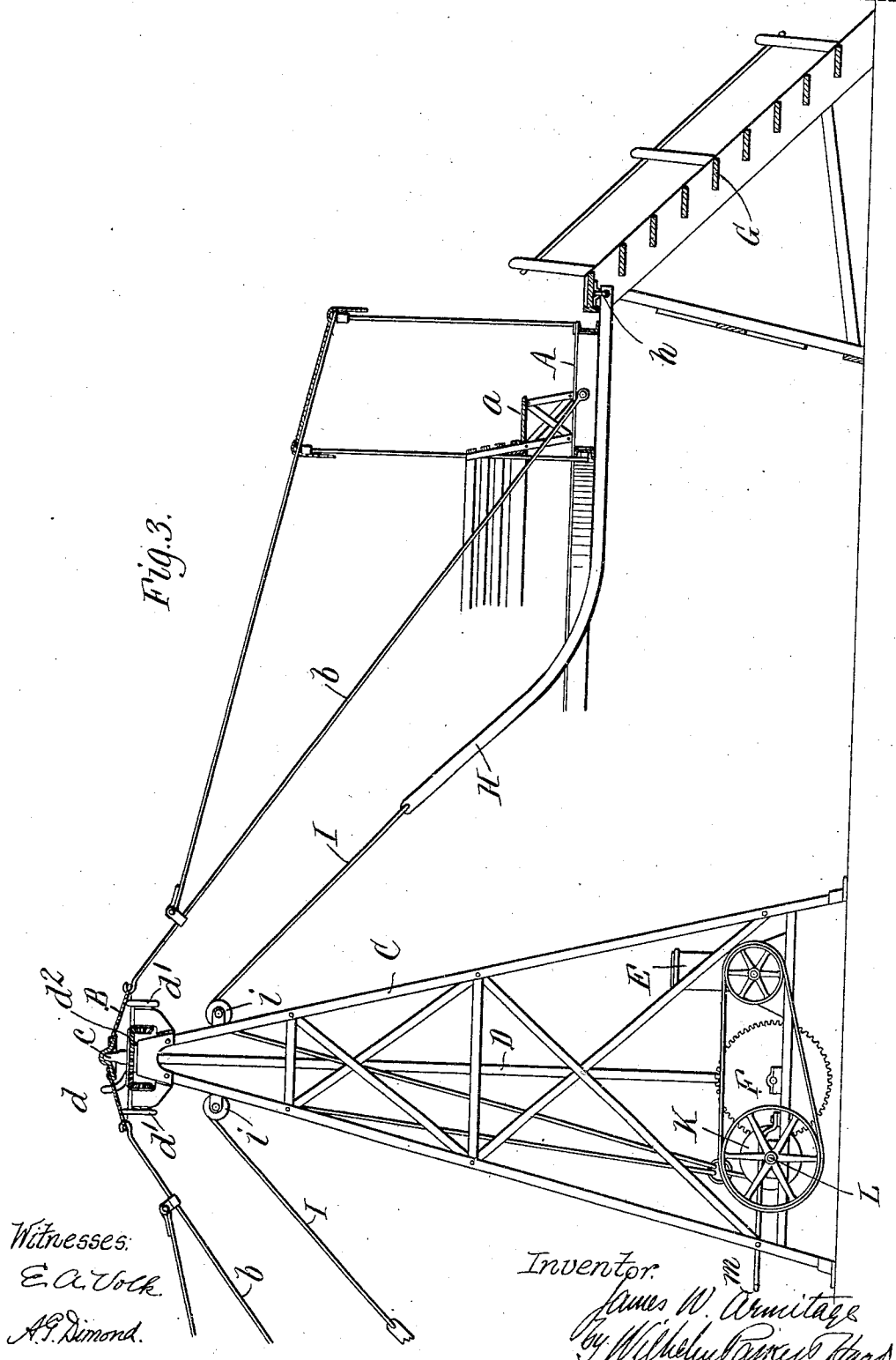
Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES W. ARMITAGE, OF NORTH TONAWANDA, NEW YORK, ASSIGNOR OF ONE-HALF TO JOSEPH D. GUINN, OF SPRINGVILLE, NEW YORK.

AMUSEMENT APPARATUS.

932,089. Specification of Letters Patent. Patented Aug. 24, 1909.

Application filed November 12, 1908. Serial No. 462,257.

To all whom it may concern:

Be it known that I, JAMES W. ARMITAGE, a citizen of the United States, residing at North Tonawanda, in the county of Niagara and State of New York, have invented a new and useful Improvement in Amusement Apparatus, of which the following is a specification.

This invention relates more particularly to improvements in roundabouts or amusement apparatus of the kind disclosed in Letters Patent No. 863,133, granted August 13, 1907, to myself and J. D. Guinn, in which the rotary platform or ring which carries the pleasure-seekers is mounted so that it can rock or oscillate as it revolves, to produce an undulating motion thereof. In the use of these devices it is necessary or desirable to steady or hold the platform stationary in a substantially horizontal position while the persons get onto and off of the same, and the object of this invention is to provide means of simple and inexpensive construction, capable of being readily operated with but little exertion for accomplishing this result; and also to provide for operating the holding device by the driving power for the platform.

In the accompanying drawings, consisting of two sheets: Figure 1 is a sectional elevation of a roundabout provided with holding or steadying means for the platform embodying the invention. Fig. 2 is a sectional plan view of the supporting tower and driving mechanism for the platform. Fig. 3 is a fragmentary sectional elevation, on an enlarged scale, of the roundabout, showing the platform held in the horizontal position.

Like letters of reference refer to like parts in the several figures.

A represents the platform or ring which is supported so that it is free to revolve and rock or undulate. In the construction shown, as in said patented apparatus, the platform is provided with a bench or seat *a* and is suspended by rods or the like *b* from a central cap plate B which bears on and is free to revolve and rock or undulate on a center bearing *c* at the top of a central tower or support C. The cap plate is revolved by an arm *d* connected to a vertical shaft D journaled in bearings in the tower, and is rocked or oscillated as it revolves by eccentrics *d'* which engage the cap plate and are driven by the shaft D through gearing d^2. The vertical shaft D is driven by an engine or motor E through suitable drive mechanism F. The construction and operation of the mechanism, thus briefly described, for driving and rocking the platform is more fully described in said patent. This invention is not, however, concerned with the construction of the platform and the means for supporting, driving and rocking the same, and the platform may be of any suitable construction and may be supported and operated in any known or suitable manner.

G represents steps by which persons can ascend and descend to and from the platform. One or more flights of steps can be provided, two or more being preferably employed at suitable points around the platform.

H represents levers fulcrumed at their outer ends by shackles *h*, or other suitable connections, to the upper portions of the flights of steps G and extending inwardly therefrom beneath the rotary platform A. The inner ends of the levers are attached to ropes, cables or other flexible connections I which pass over suitable pulleys or guides *i* on the upper portion of the tower B and are connected to a winding drum or windlass K, by operating which, to take up or let out the ropes or cables I, the inner ends of the holding levers H can be raised and lowered toward and from the platform A.

When the platform is occupied and it is desired to start it, the windlass K is first operated to drop the levers H to the position shown in Fig. 1 in which they incline downwardly from the steps and do not interfere with the up and down or rocking motion of the platform. When it is desired to stop the platform and hold or steady it in the horizontal position for persons to get on and off of it, the platform is first disconnected from its driving power and the windlass K is then operated to lift the levers, which, engaging the platform, tend to arrest its rotary motion and move the platform into and retain it in the horizontal position shown in Fig. 3.

The levers H are preferably bent as shown, because longer levers, with the resulting advantage of greater leverage, can thus be used than if they were straight. Long straight levers would interfere with the dipping of the platform, but with the bent levers the platform can dip nearly to the ground without striking the levers. The shackles or

loose fulcrum connections *h* for the levers allow the levers to swing horizontally more or less with the platform when lifted against it, which lessens the strains on the lever connections and enables the platform to be arrested more smoothly, or with less jerking. Any suitable number of the levers may be employed, two or more disposed at proper distances apart being preferred. The steps afford convenient fulcrum supports for the levers, but manifestly the levers could be fulcrumed on other sorts of stands or supports.

The windlass K for the lever-operating ropes is preferably driven by power. In the apparatus shown, it is mounted on a shaft L of the drive mechanism for the platform, and a friction clutch M controlled by a hand lever *m*, Fig. 2, is provided for connecting the windlass to and disconnecting it from said shaft for raising and lowering the holding levers H. A toothed wheel *n* on the windlass, adapted to be engaged by a dog lever N, is provided for locking the windlass to retain the levers in their raised holding position. Any other suitable winding device for the lever-operating ropes or cables could be used.

I claim as my invention:

1. In an amusement apparatus, the combination with a platform mounted to revolve and rock or undulate, of a lever extending inwardly beneath said platform from its fulcrum, and means connected to the inner end of said lever for raising it against said platform to steady the platform in a substantially horizontal position, substantially as set forth.

2. In an amusement apparatus, the combination with a platform mounted to revolve and rock or undulate, of levers extending substantially radially relative to said platform from their fulcrums, and an operating device for said levers connected to the inner ends thereof for moving the levers into engagement with said platform to steady the same, substantially as set forth.

3. In an amusement apparatus, the combination with a platform mounted to revolve and rock or undulate, of levers extending inwardly beneath said platform from their fulcrums, flexible connections attached to the inner ends of said levers and passing over elevated guides, and a windlass to which said flexible connections are connected for raising and lowering said levers into and out of engagement with said platform, substantially as set forth.

4. In an amusement apparatus, the combination of a central support, a platform suspended from said support so as to revolve and rock or undulate, a lever extending inwardly from its fulcrum toward said support, a flexible connection attached to the inner end of said lever, a guide on said support for said flexible connection, and a windlass to which said flexible connection is attached for moving said lever into and out of engagement with said platform, substantially as set forth.

Witness my hand, this 29th day of October, 1908.

JAMES W. ARMITAGE.

Witnesses:
JAMES H. MUNDIE,
J. GUSTAVE DAHLSTEDT.