

No. 871,306.

W. S. THURLOW. PATENTED NOV. 19, 1907.
MERRY-GO-ROUND.
APPLICATION FILED NOV. 24, 1906.

4 SHEETS—SHEET 1.

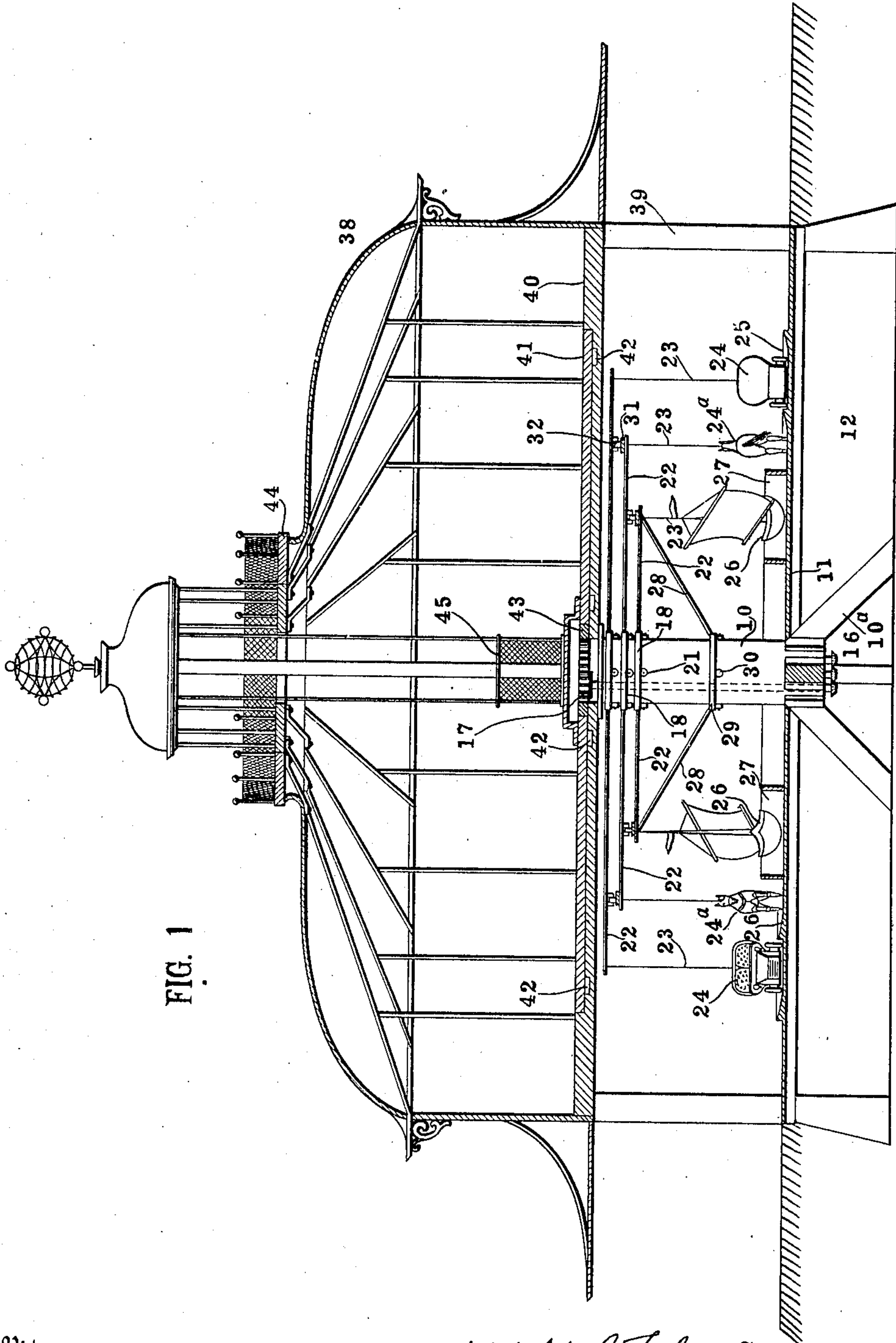


FIG. 1

Witnesses
Max B. A. Doring
Frank L. Stubbs.

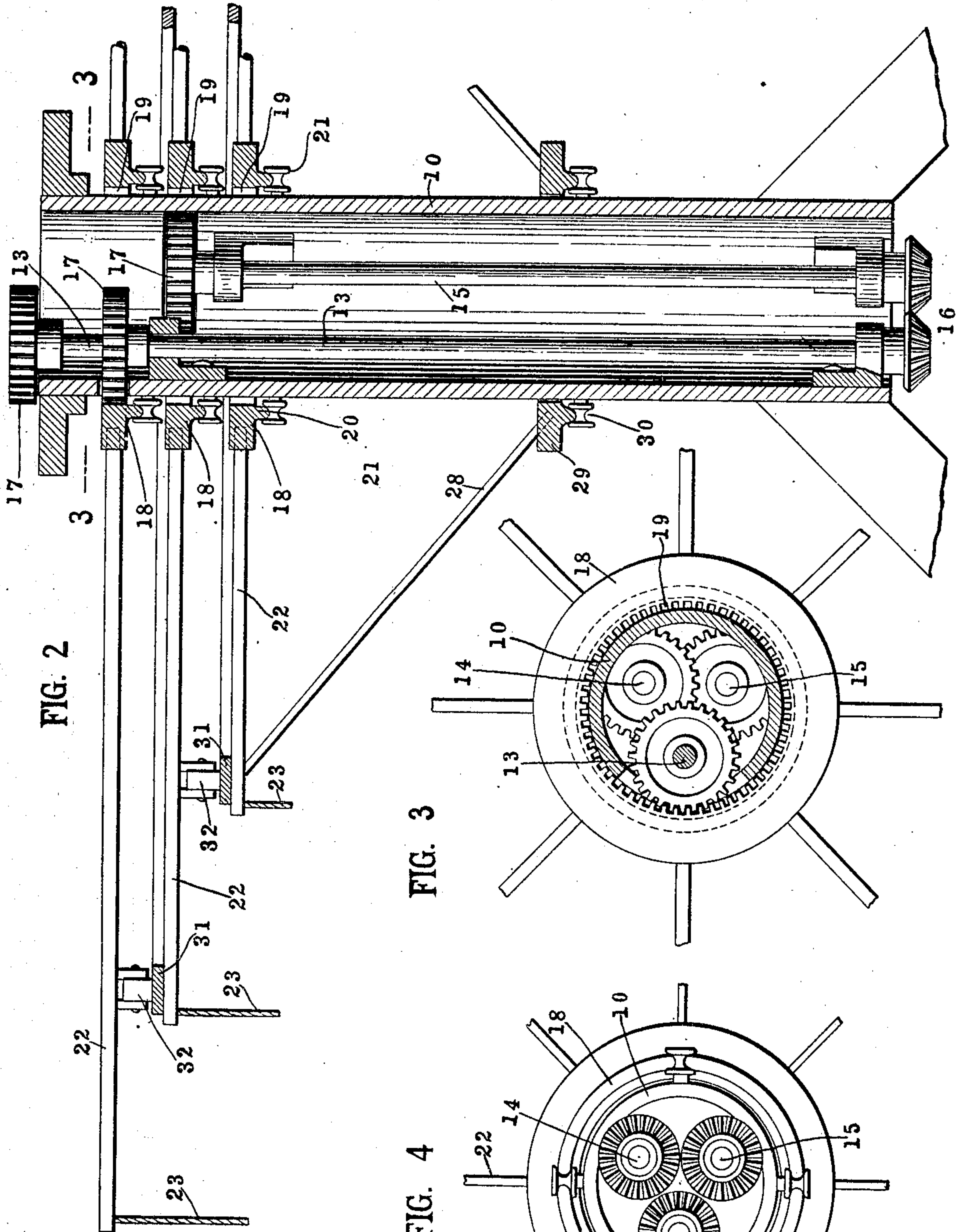
Winfield S. Thurlow, Inventor,
By his Attorney W. B. Hutchinson,

No. 871,306.

W. S. THURLOW.
MERRY-GO-ROUND.
APPLICATION FILED NOV. 24, 1906.

PATENTED NOV. 19, 1907.

4 SHEETS—SHEET 2.



Witnesses
Max B. A. Doring
Frank L. Stubbs.

Winfield S. Thurlow, Inventor
By his Attorney W. B. Hutchinson.

No. 871,306.

W. S. THURLOW.
MERRY-GO-ROUND.

APPLICATION FILED NOV. 24, 1906.

PATENTED NOV. 19, 1907.

4 SHEETS—SHEET 3.

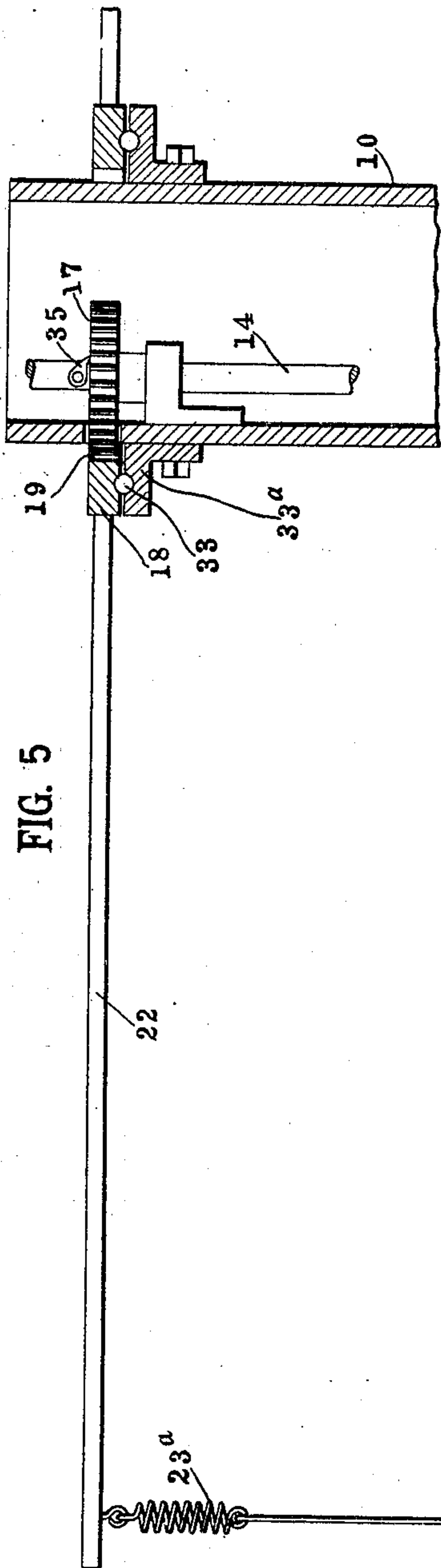


FIG. 5

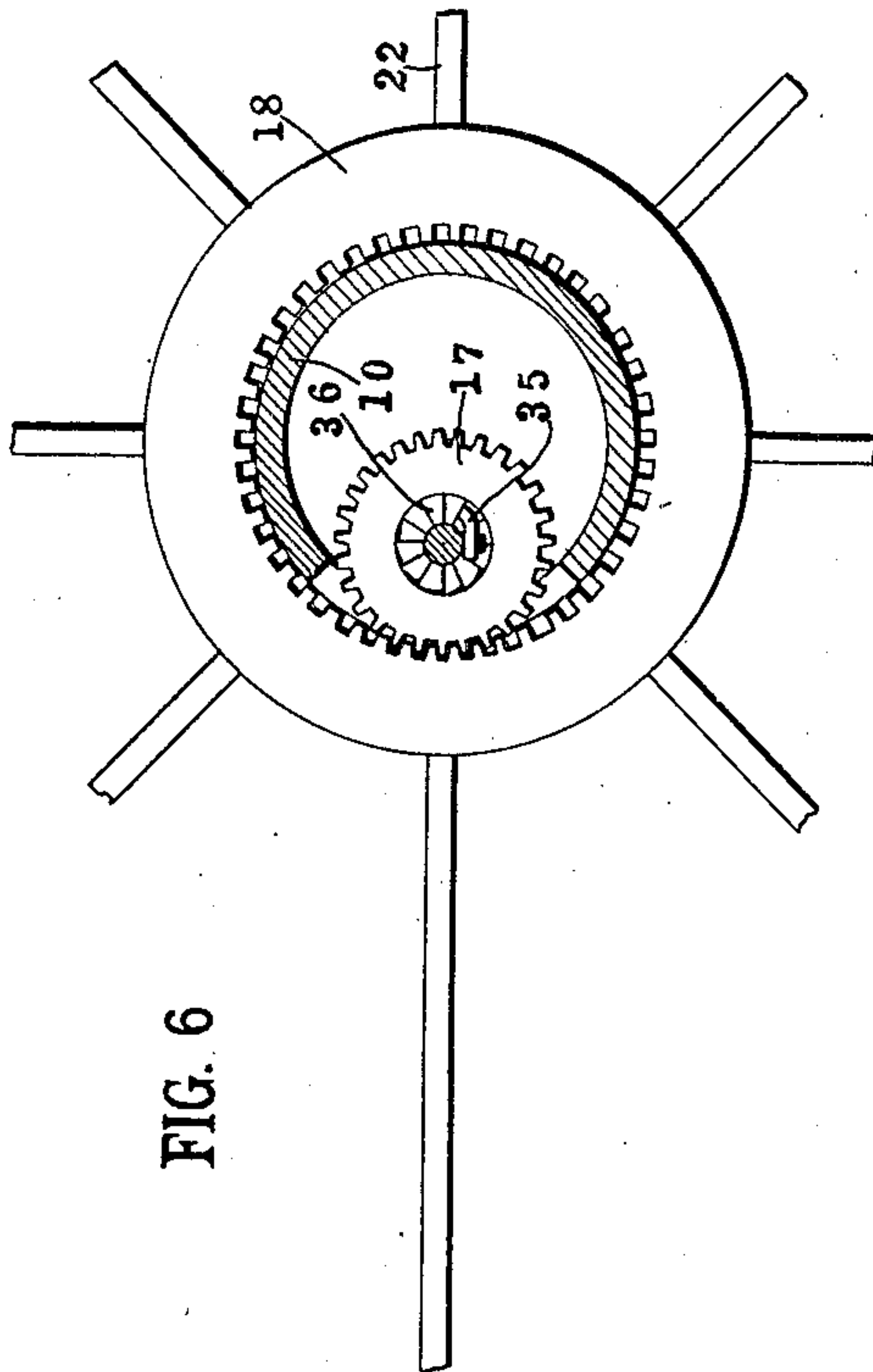


FIG. 6

Witnesses
H. B. A. Doring
Frank L. Stubbs.

Winfield S. Thurlow, Inventor
By his Attorney W. B. Hutchinson.

No. 871,306.

PATENTED NOV. 19, 1907.

W. S. THURLOW.
MERRY-GO-ROUND.

APPLICATION FILED NOV. 24, 1906.

4 SHEETS—SHEET 4.

FIG. 7

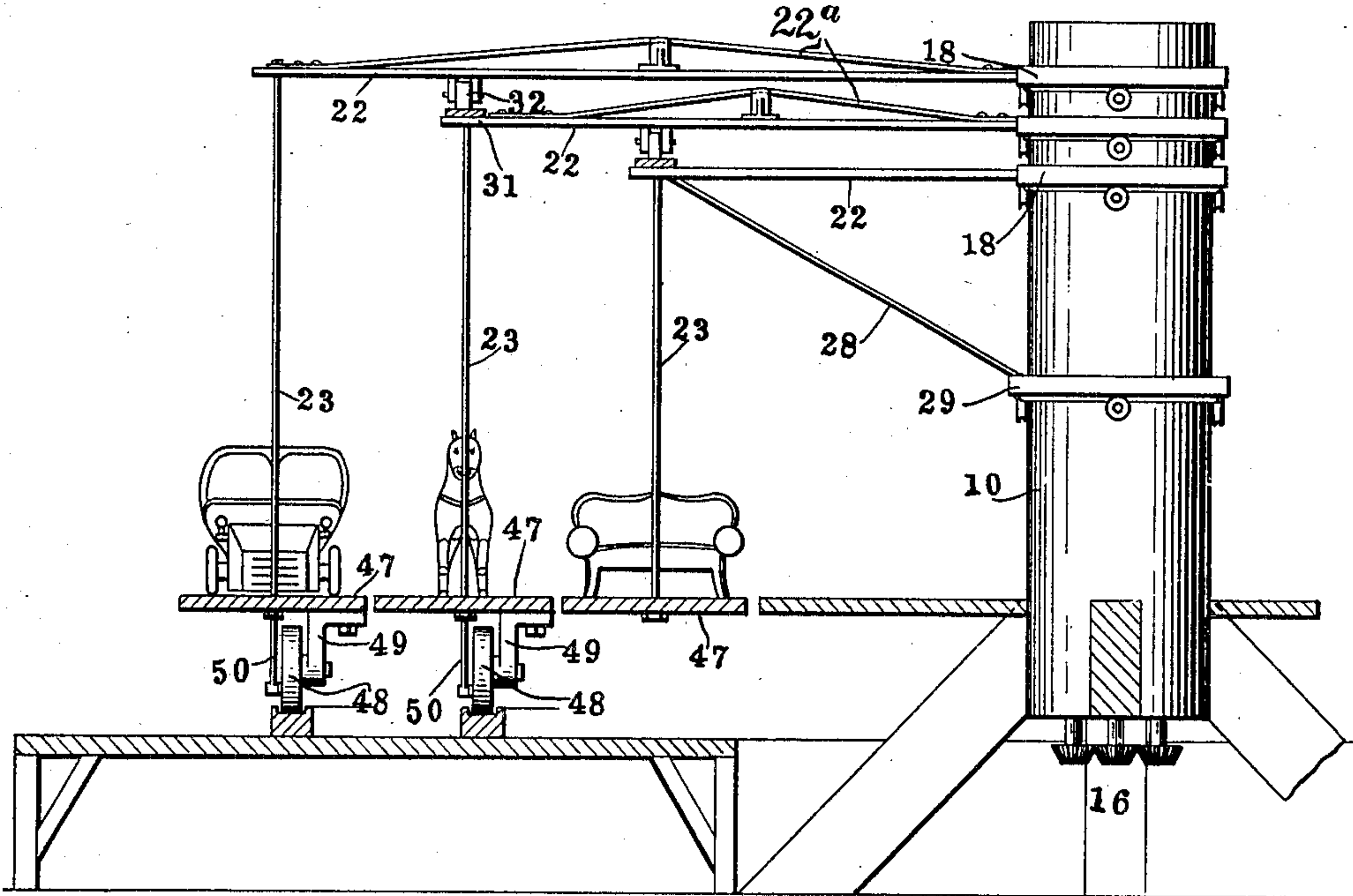
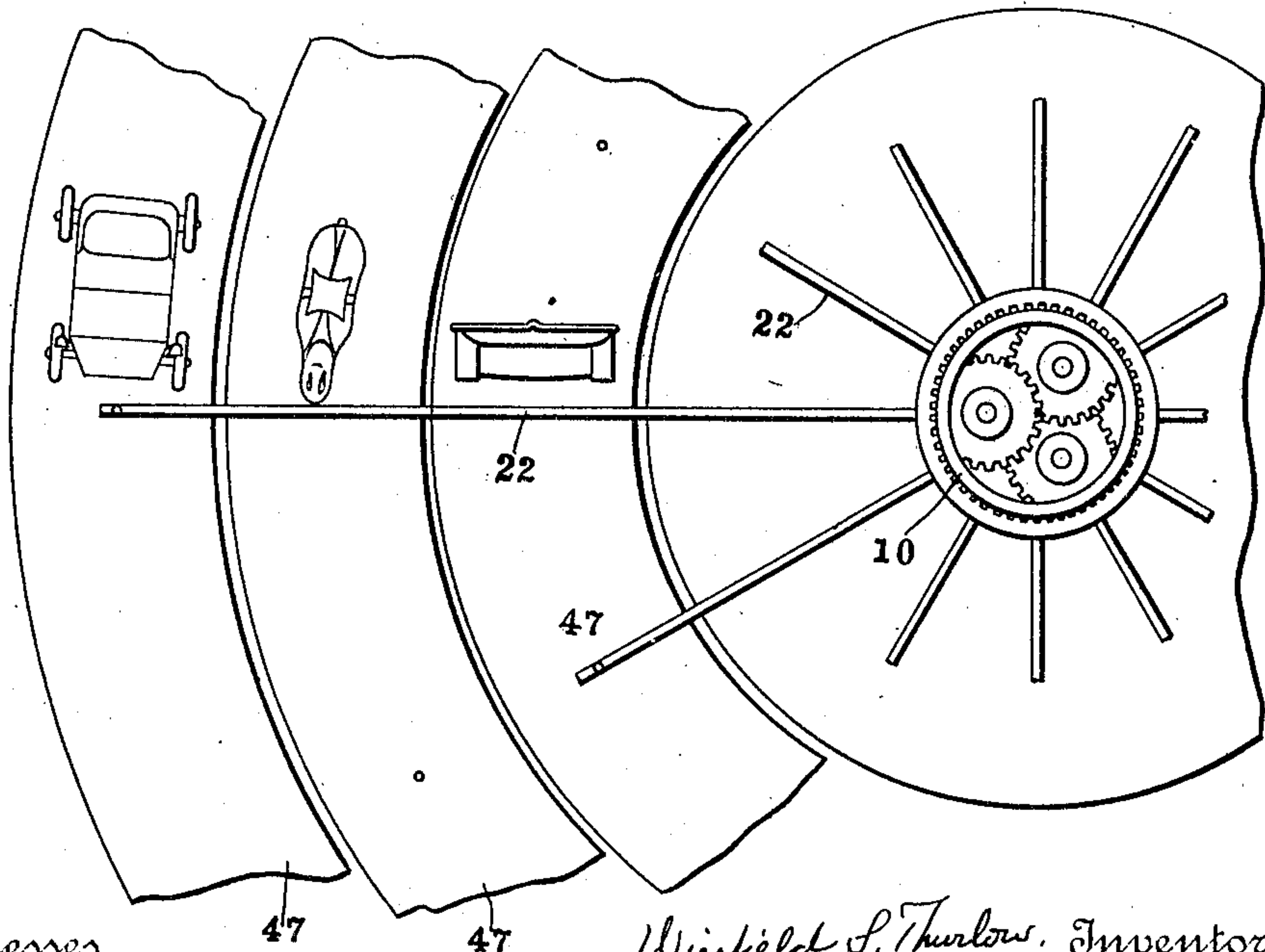


FIG. 8



Witnesses
Max B. A. Doring.
Frank L. Stubbs.

Winfield S. Thurlow. Inventor
By his Attorney W. B. Hutchinson.

UNITED STATES PATENT OFFICE.

WINFIELD S. THURLOW, OF BOSTON, MASSACHUSETTS.

MERRY-GO-ROUND.

No. 871,306.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed November 24, 1906. Serial No. 344,854.

To all whom it may concern:

Be it known that I, WINFIELD S. THURLOW, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Merry-Go-Round, of which the following is a full, clear, and exact description.

My invention relates to improvements in merry-go-rounds and the object of my invention is to elaborate this system of amusement and produce a structure which has a wider scope and affords greater amusement than can be had with the ordinary device of this character. In consonance with this idea my invention comprises a relatively large structure in which plural series of moving objects can be arranged to travel in concentric lines; further I provide means whereby the individual efforts of some of the riders will accelerate their speed so that the element of racing can enter into the sport; also I provide in connection with the structure a rotating dance floor and finally I provide an observation tower which can be used as a beer garden or for any other necessary or desirable purpose.

With these ends in view my invention consists of certain features of construction and combinations of parts which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters and figures of reference indicate corresponding parts in all the views.

Figure 1 is a sectional elevation of the structure embodying my invention. Fig. 2 is an enlarged detail view showing the means for independently propelling the different series of devices. Fig. 3 is a cross section on the line 3-3 of Fig. 2. Fig. 4 is a broken plan view of the driving apparatus. Fig. 5 is a detail sectional view of a modified means of driving a part of the apparatus. Fig. 6 is a sectional plan of the structure shown in Fig. 5. Fig. 7 is a sectional elevation of another modified form of the structure, and Fig. 8 is a broken plan view of the structure shown in Fig. 7.

In carrying out my invention I employ a central hollow post or pillar 10 which is mounted upon a suitable floor 11 and I prefer to arrange space 12 beneath the floor to provide for the driving mechanism, which may be electric motors or any suitable engines.

This also enables me to conceal the bracing supports 10^a which connect with the pillar 10. The hollow pillar or post 10 enables me to conceal the vertical driving shafts 13, 14, and 15, and obviously there may be any reasonable number of these shafts from one up, and at their lower ends they project below the pillar or post 10 and as shown, have driving gears 16, but they may have any operative means of connecting with devices to turn the shafts. This driving means may, of course, be an independent means for each shaft so that if desired, the shafts and their propelled mechanism may be conveniently given different speeds. The tops of the shafts 13, 14, 15, have driving gears 17, one of which is arranged just above the pillar top, as shown in Fig. 2, for a purpose hereinafter described, and the others project through openings in the pillar so as to engage the gears 19 on the inner sides of the rings 18, which rings are arranged one above the other and encircle the pillar or post 10 near the upper part thereof, the said rings having preferably reduced lower edges 20 which ride in rollers 21, the latter being pivoted on the post 10. Obviously any suitable bearings can be substituted for the parts 20 and 21, such as the well known roller bearings or ball bearings, to enable the parts to turn with the greatest ease.

Projecting radially from each ring 18 are arms 22 and each series of arms are of different lengths so that each can serve as a means for propelling a different series of devices. To this end the arms carry drop cables 23, although rods can be substituted if preferred, and these connect with devices to be moved in much the usual manner. For instance, the longer arms 22 carry the carriages or automobiles 24 which obviously may be any sort of vehicles and these run on a track 25. The next series of arms 22 carry the horses 24^a which move over a track 26, and the third series of arms carry vessels in the form of boats which move in a track 27 and the latter can be filled with water so that the boats will sail. These details are however immaterial and obviously any desired number of these concentric tracks can be used and any objects of interest can be substituted for the carriage, horses and boats, as for instance, the bicycle shown in Fig. 5, and hereinafter specifically referred to.

A convenient means of bracing the arms is

shown in Figs. 1 and 2, and here inclined braces 28 connect with the outer ends of the arms 22 and with a ring 29 which rides on rollers or other suitable bearings 30 on the post 10, and the rings can be geared to the same driving shaft which is geared to the ring 18, so that the parts shall have the proper unity of movement. The short arms 22 carry a track 31 (see Fig. 2) which sustains rollers 32 on the underside of the next upper arms 22, and a like arrangement is placed between these middle arms 22 and the longest arms as the drawing clearly shows. This arrangement affords a convenient means for bracing the arms, but other suitable means can be substituted if desired.

The upper and middle arms 22 can be braced by trusses 22^a if desired. In Figs. 5 and 6 I have shown means of driving the arms 22 which permits the arms to have an independent movement. To this end the gear 17 is loose on the shaft 14 and the connection between the two is made by a pawl 35 on the shaft and the ratchet wheel 36 on the gear 17. The arms 22 can connect with a bicycle 37 which can be a regular self-propelled wheel and so the rider can depend on the movement of the wheel from its supporting means or he can use his own exertions and drive the wheel faster which is permitted by reason of the ratchet connection with the driving shaft just described. To facilitate this it is well to have a ball bearing for the ring 18 and I have shown balls 33 arranged between the ring and a supporting ring 33^a beneath it. If desired the bicycle support 23 can be connected with the spring 23^a, to permit the bicycle to swing out when moving fast, without leaving the track, as the spring will elongate to permit this. It will be seen that this idea of affording racing sport can be further carried out in a way by reason of the independent connections between each series of traveling objects and their driving shafts. That is to say, the several vertical shafts 13, 14 and 15 can be connected with suitable motors so that under the control of the operator they may be alternately driven faster and slower so that one set of objects may move ahead and then the other, thus giving to all intents, the racing effect and therefore enhancing the amusement.

The structure which I have just described is preferably housed in and the part 39 at the sides can carry a housing 38 which can be of any approved design and which can have a stationary floor 40 and also a rotating floor 41, this being preferably supported by means of roller bearings 42 or other easy bearings, and the floor 41 can connect by a gear 43 with the top gear 17 already referred to, so that the people who wish can sit or walk on the stationary floor 40, while others can dance or promenade on the movable part 41. At the

top of the structure is an observation tower 44 which can be reached by an elevator 45 and this can be operated in any usual way.

In Figs. 7 and 8 I have shown a modification of the invention which permits the several series of figures to move independently, as already stated, and it provides also for an independent move of the figures, as for instance, a rocking move of a horse or other thing to be ridden. As here shown, the rods 23 carry independent platforms 47, which are concentric and can be moved at the same or varying speeds, and some or all of these platforms can run on trucks 48 which follow suitable tracks, and which are mounted on hangers 49, and the rod 50 can be eccentrically connected to the truck and extended up through the platform to the back part of the horse, carriage, or other thing, so that the said thing to be ridden will be given a rocking movement independent of the movement of the platform. I have shown a simple means for doing this, but obviously many different devices can be used for effecting this independent movement, and the wheels 48 can be dispensed with if desired.

It will thus be seen that I provide a great source of concentrated amusement. The concentrically moving devices which can be regulated as specified to go faster or slower, the music which always accompanies such things, the movable dance floor, the stationary part adjacent to it, the observation tower, and the elevator to reach it, all combine to make an amusement device which is attractive and comprehensive.

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

1. A structure of the kind described, comprising a hollow post or pillar, vertical driving shafts arranged therein, plural series of arms turning around the pillar, the series of arms being of different lengths, operative driving connections between the arms and the aforesaid shafts, and movable objects carried by the arms.

2. A structure such as described, comprising a hollow pillar, vertical driving shafts supported therein, rings turning on the pillar and geared to the shafts, and a series of arms projecting outward from each ring, the several series being of different lengths, and each series carrying movable objects.

3. A structure such as described, comprising a hollow post or pillar, vertical driving shafts arranged therein, plural series of arms turning around the pillar, the series of arms being of different lengths, operative driving connections between the arms and the aforesaid shafts, a series of concentric platforms carried by the arms, and movable objects on the platforms.

4. A structure such as described, comprising a hollow post or pillar, vertical driving

shafts arranged therein, plural series of arms turning around the pillar, the series of arms being of different lengths, operative driving connections between the arms and the afore-
5 said shafts, a series of concentric platforms suspended from and carried by the several arms, and objects on the platforms, said ob- jects being moved independently of the plat- forms.

WINFIELD S. THURLOW.

Witnesses:

FRED M. SANBORN,

CHESTER A. WALKER.