

(No Model.)

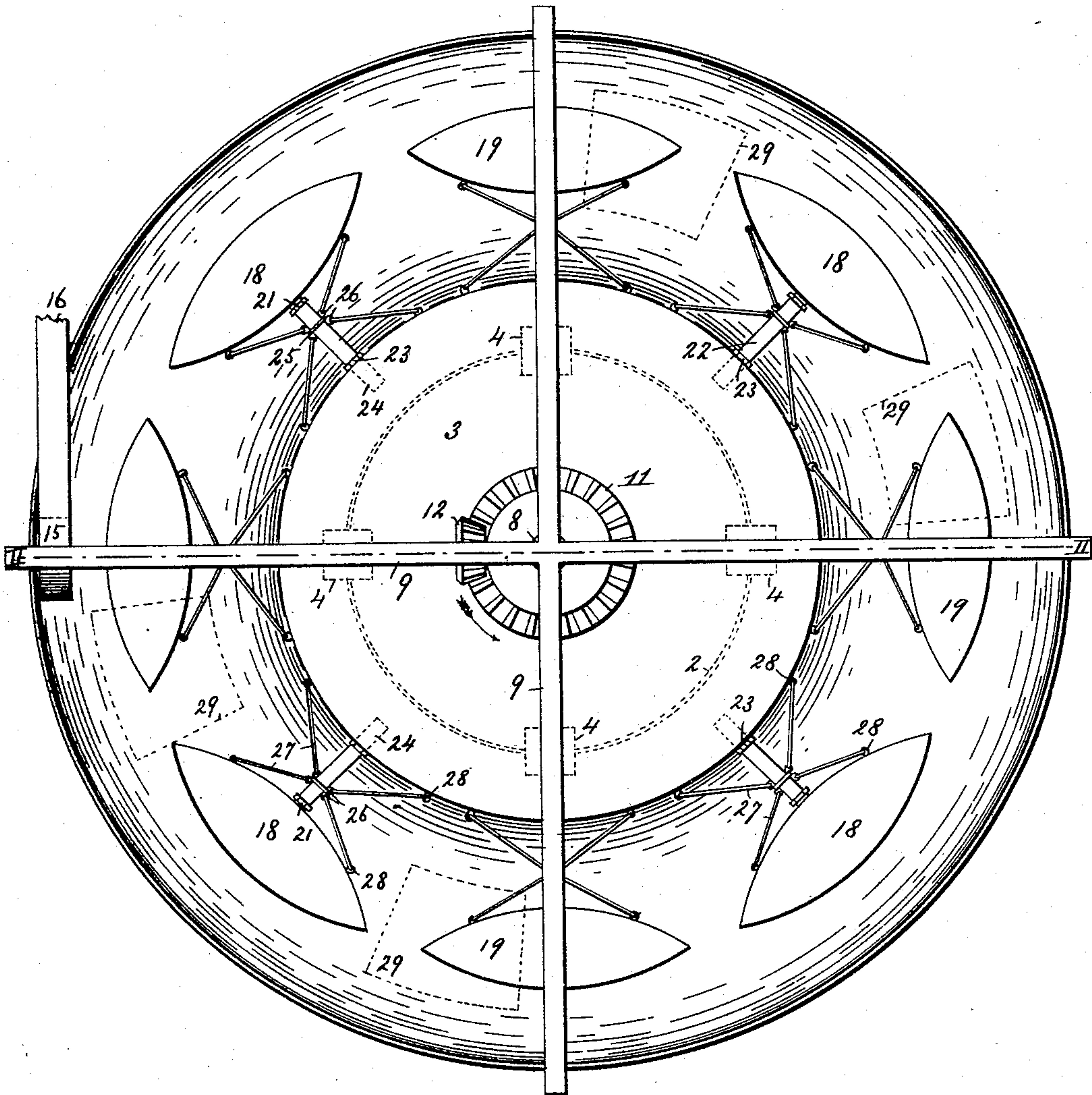
2 Sheets—Sheet 1.

A. R. NEWTON & J. C. BELL.  
MARINE MERRY-GO-ROUND.

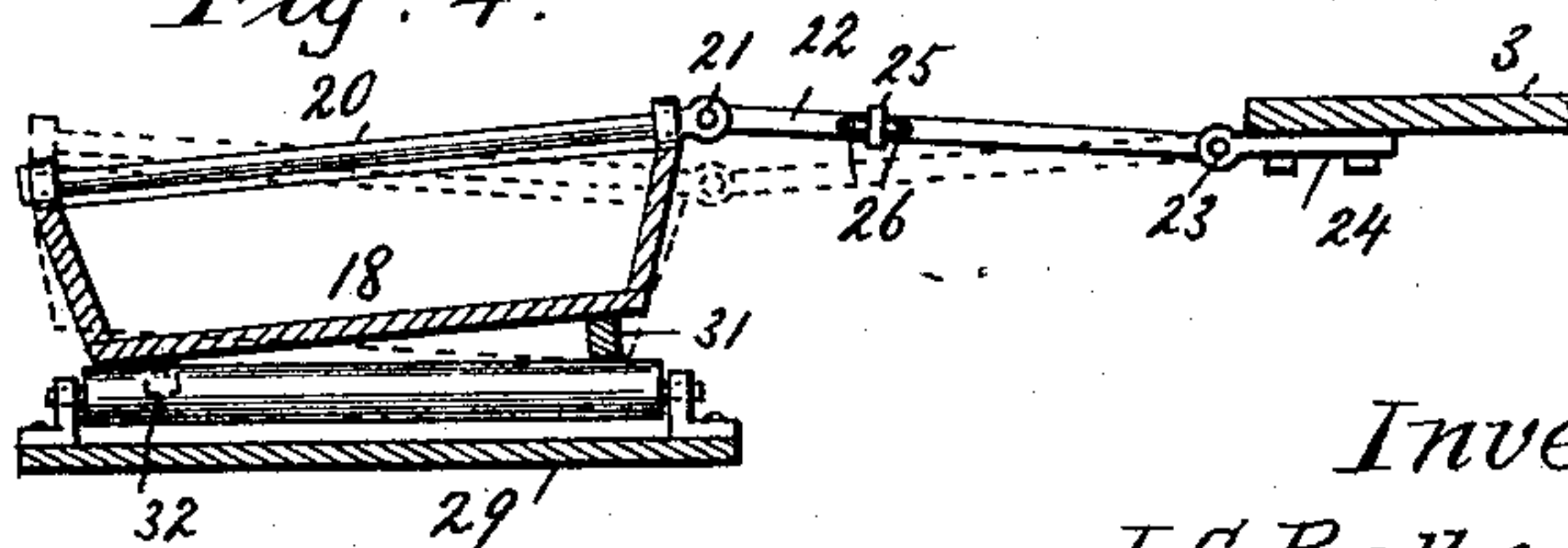
No. 578,354.

Patented Mar. 9, 1897.

*Fig. 1.*



*Fig. 4.*



Witnesses:

*F. G. Fischer*  
*G. B. Hooper*

Inventors;

*J. C. Bell and A. R. Newton*

By *Higdon & Higdon*  
Attys.

(No Model.)

2 Sheets—Sheet 2.

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No. 578,354.

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Fig. 2.

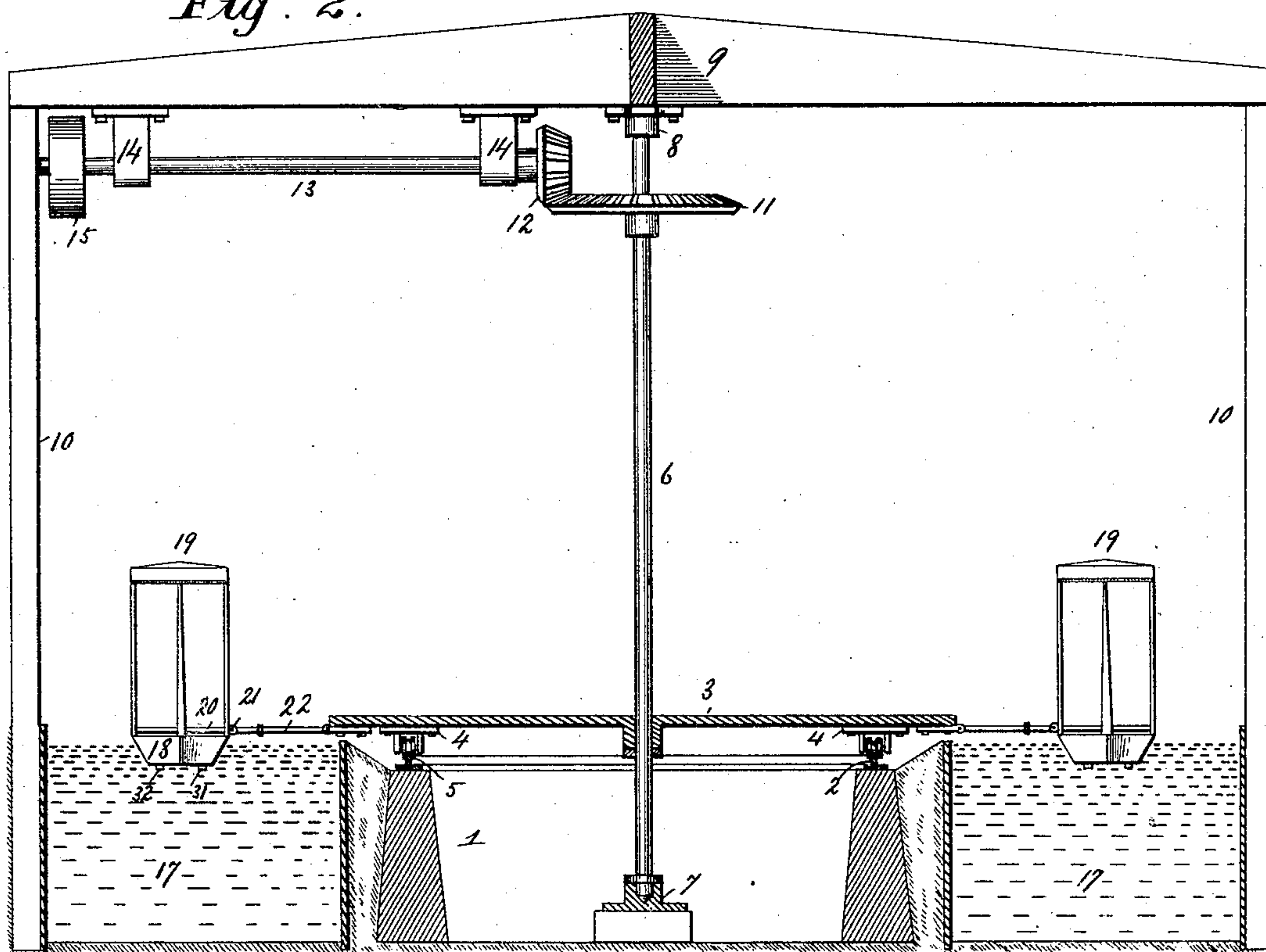
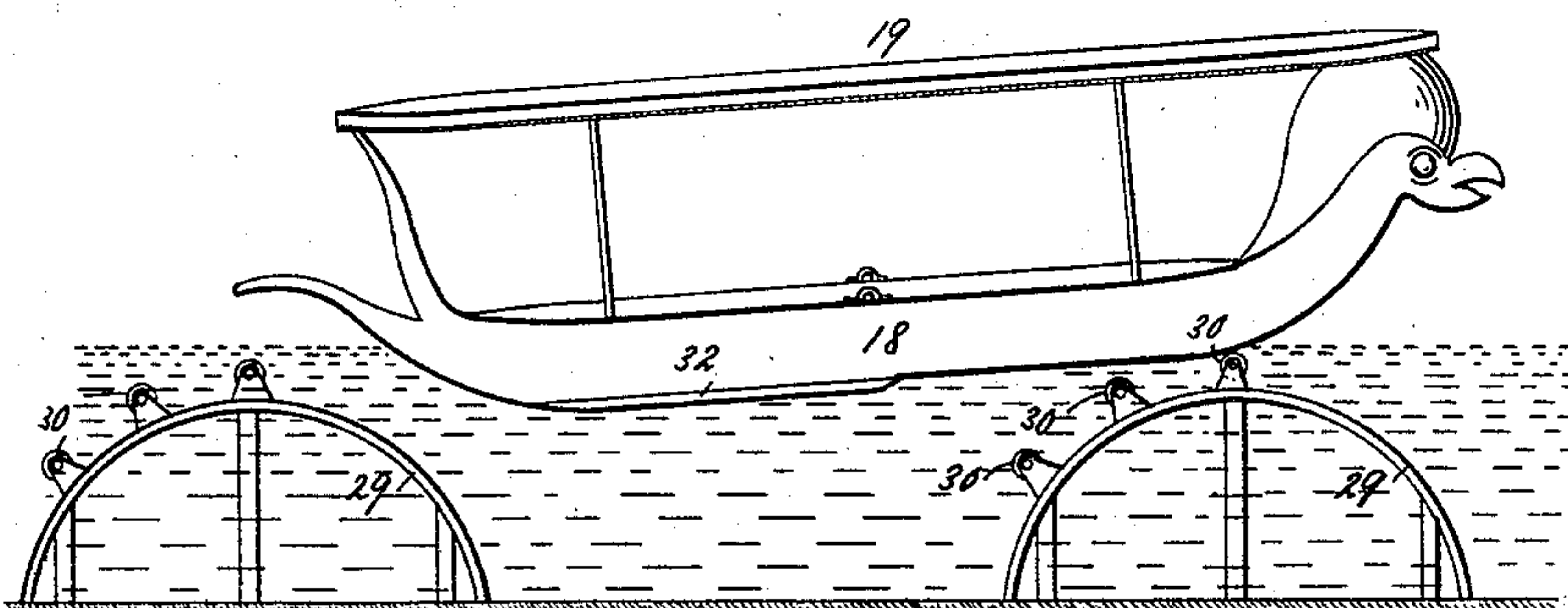


Fig. 3.



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# UNITED STATES PATENT OFFICE.

ARTHUR R. NEWTON AND JOHN C. BELL, OF KANSAS CITY, MISSOURI.

## MARINE MERRY-GO-ROUND.

SPECIFICATION forming part of Letters Patent No. 578,354, dated March 9, 1897.

Application filed June 15, 1896. Serial No. 595,657. (No model.)

*To all whom it may concern:*

Be it known that we, ARTHUR R. NEWTON and JOHN C. BELL, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements in Marine Merry-Go-Rounds, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

Our invention relates to amusement devices, or more particularly to what we shall hereinafter term a "marine merry-go-round."

Our invention essentially consists, in combination with boats, of a series of rollers or inclined planes arranged at different altitudes below the surface of the water, whereby the boats or vessels may be caused to plunge, rock, and toss in a very natural and lifelike manner upon said waters, thereby producing a sensation novel and pleasing in its effect to those who have been accustomed to water-travel and to those to whom such travel is unknown.

The object of the invention is to produce a marine merry-go-round of the character described which is simple, strong, durable, and comparatively inexpensive of construction, and perfectly safe and reliable.

To this end the invention further consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed.

In order that the invention may be fully understood, we will proceed to describe it with reference to the said accompanying drawings, in which—

Figure 1 represents a plan view of a marine merry-go-round embodying our invention. Fig. 2 represents a vertical section of the same, taken on the line II II of Fig. 1. Fig. 3 represents a view illustrating more clearly the construction of the boats or vessels forming a part of the merry-go-round and also illustrating our preferred arrangement of the means for causing said boats or vessels to plunge in a very lifelike and natural manner. Fig. 4 represents a cross-section of one of said boats in the act of passing over one of the rollers for inducing the boat to pitch and toss upon the waters.

Referring to the drawings in detail, wherein similar numerals refer to corresponding parts, 1 designates a supporting wall or foundation, and 2 a circular track therefor.

3 designates a circular platform provided with brackets 4 at its under side carrying grooved rollers 5, which rest upon the circular track 2. Said platform is mounted upon or otherwise rigidly connected to the vertical shaft 6, journaled at its lower end below said platform in a bearing 7 and at its upper end in a bearing 8, which may be carried by a framework, such as at 9, or of any other suitable or preferred construction. In this instance the framework comprises a pair of cross-bars which are supported at their outer ends by means of standards or posts 10. The large gear-wheel 11 is mounted rigidly upon the shaft 6 at any suitable point and is engaged by a gear-pinion 12, mounted upon a shaft 13, journaled in bearing-brackets 14, depending from the framework 9, or otherwise suitably supported. At its outer end the shaft 13 carries a belt-pulley 15, which is connected to an engine or other suitable motive power (not shown) by means of a belt 16, or the shaft 15 may be driven in any other suitable manner. Surrounding the wall 1 is a circular canal or waterway 17, the upper surface of which is just below the plane of the platform 3, and resting upon said water are a number of boats or vessels 18, arranged, preferably, as shown. Said boats will preferably be constructed in various forms—for instance, may simulate the appearance of dragons, animals, and fantastic shapes or forms in general, and may be painted, gilded, and ornamentally decorated so as to present as pleasing and attractive an appearance as possible.

When traveling through the water and plunging and rolling during such progress in a manner to be presently explained, the boats representing such animals, &c., will appear very lifelike, particularly to children. Each boat will preferably be provided with an awning 19, so as to protect the occupants from the sun, or a framework 9 may be employed to support a single large awning (not shown) which will cover all of the said boats and the central platform, upon which persons who do not care to ride in the boats and very small children may be seated. Each boat is journaled upon a cross-brace 20, and the inner end of said brace is hinged, as at 21, to operate in a vertical plane to a link 22, which is hinged in turn at its inner end, as at 23, to an arm 24, bolted rigidly or otherwise secured



to the under side of the platform 3. A suitable distance from the outer end of said link it is formed with a flange 25, provided at each side with a pair of eyes 26, to which are attached pivotally the divergently-extending brace-rods 27, attached at their opposite ends, as at 28, to the boat and the platform. By this method of bracing the boat is held positively and reliably to the platform, so that it cannot possibly upset, and yet is permitted to pitch and toss and rock upon the water without any accompanying jar or shock to its occupants.

In order that the boat may be caused to rise and fall and to rock, supports 29 are secured at intervals a suitable distance below the surface of the water. Said supports may be in the form of arches, as shown, or of any other suitable or preferred construction, and mounted upon each of them is one or more antifriction-rollers 30, said antifriction-rollers being preferably arranged in different horizontal planes, the last being above the plane of the bottom of the boat when in its normal position, and the highest being adjacent to the surface of the water, preferably. By this arrangement it is obvious as the rounded or beveled part of the boat or vessel comes in contact with said rollers it will rise in a very natural manner over them and pitch forward, after its center of gravity has passed the uppermost roller, in the manner of a vessel descending into a trough of the sea after riding on the crest of a wave. The depth to which the boat is submerged will of course depend upon the load it carries, or, in other words, upon the number of persons in the boat, and consequently the number of antifriction rollers or stops which each boat takes as it rises over said arches will depend upon the depth to which it is submerged.

In order to cause the boat to rock laterally each time it passes over one of said arches, we preferably secure at its inner side and front end the longitudinally-extending strip 31, having its ends rounded or beveled, so that it will ride easily and smoothly upon the rollers as they are successively presented, and consequently the boat will be tilted upwardly at its inner side, as illustrated in Fig. 4. In order to tilt the boat inwardly or upwardly at its outer side, similar strips 32 are secured to the bottom of the boat at its outer side and near its rear end, as shown most clearly in Fig. 3. Thus it will be seen these strips alternately engage the rollers as the boats travel round and round, and consequently keep the boats rocking from side to side.

With each plunge of the boats forward there will be an accompaniment in the form of screams or shrieks from the occupants—that is, from the ladies and children therein—and this will naturally attract the attention of persons in the vicinity and perhaps induce them, after watching the operation, to take a ride themselves.

It is obvious from the foregoing that the novelty of a marine merry-go-round of this description will not wear off and that it will be a decided improvement over the customary merry-go-round and will increase many-fold the pleasure of children visiting the parks or other places where such device or devices are located and will afford, by reason of the splashing of the water and rolling and tossing of the boats, a cool and enjoyable ride.

From the above description it is obvious that we have produced a marine merry-go-round which embodies the desirable features enumerated in the statement of invention.

It is to be understood, of course, that changes in the form, detail construction, and arrangement in the motive power may be made and mechanical equivalents substituted without departing from the spirit and scope or sacrificing any of the advantages of our invention.

Having thus described the invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a canal or waterway, and a series of antifriction-rollers arranged in different horizontal planes below the surface of the water, of boats traveling upon said canal or waterway and provided at the front and inner margins of their bottoms with strips to induce the boats to roll in one direction, and with similar strips at the rear and outer margins of the bottoms to induce them to roll in the opposite direction, substantially as described.

2. The combination with a rotary platform, and a circular surrounding canal or waterway, of boats upon said waterway, transverse rods journaled upon said boats at their middle, links hinged at their outer ends to said rods and at their inner ends to said platform, brace-rods also hinged to said links and to said boats and platform, and antifriction-rollers arranged in the path of said boats and submerged in the canal or waterway, substantially as described.

3. The combination with a rotary platform, and a circular surrounding canal or waterway, of boats upon such waterway, transverse rods journaled upon said boats at their middle, links hinged at their outer ends to said rods and at their inner ends to said platform, brace-rods also hinged to said links and to said boats and platform, antifriction-rollers arranged in the path of said boats and submerged in the canal or waterway, and strips secured to the front and inner, and rear and outer margins of the bottom of each boat, substantially as shown and described.

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

ARTHUR R. NEWTON.  
JOHN C. BELL.

Witnesses:

G. Y. THORPE,  
M. R. REMLEY.