

No. 762,566.

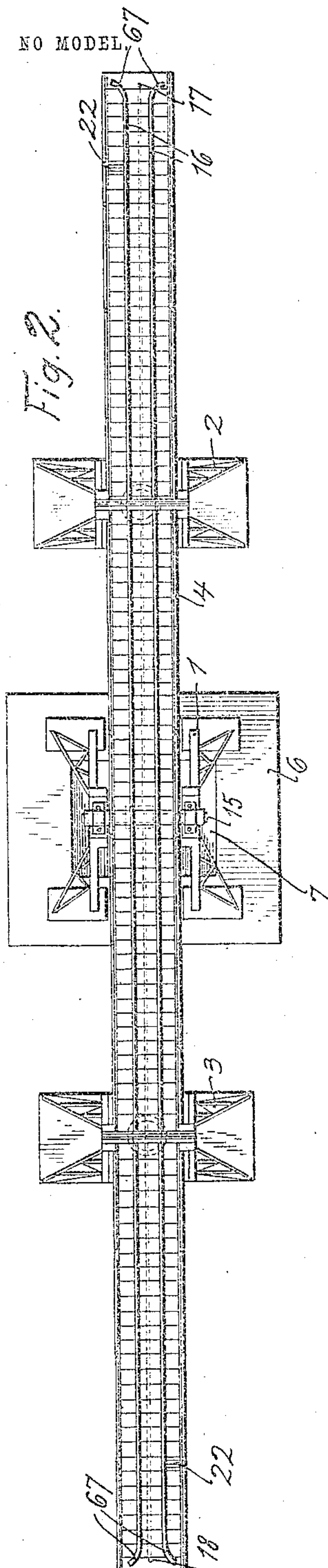
PATENTED JUNE 14, 1904.

A. L. WEBSTER & J. E. H. HYDE.

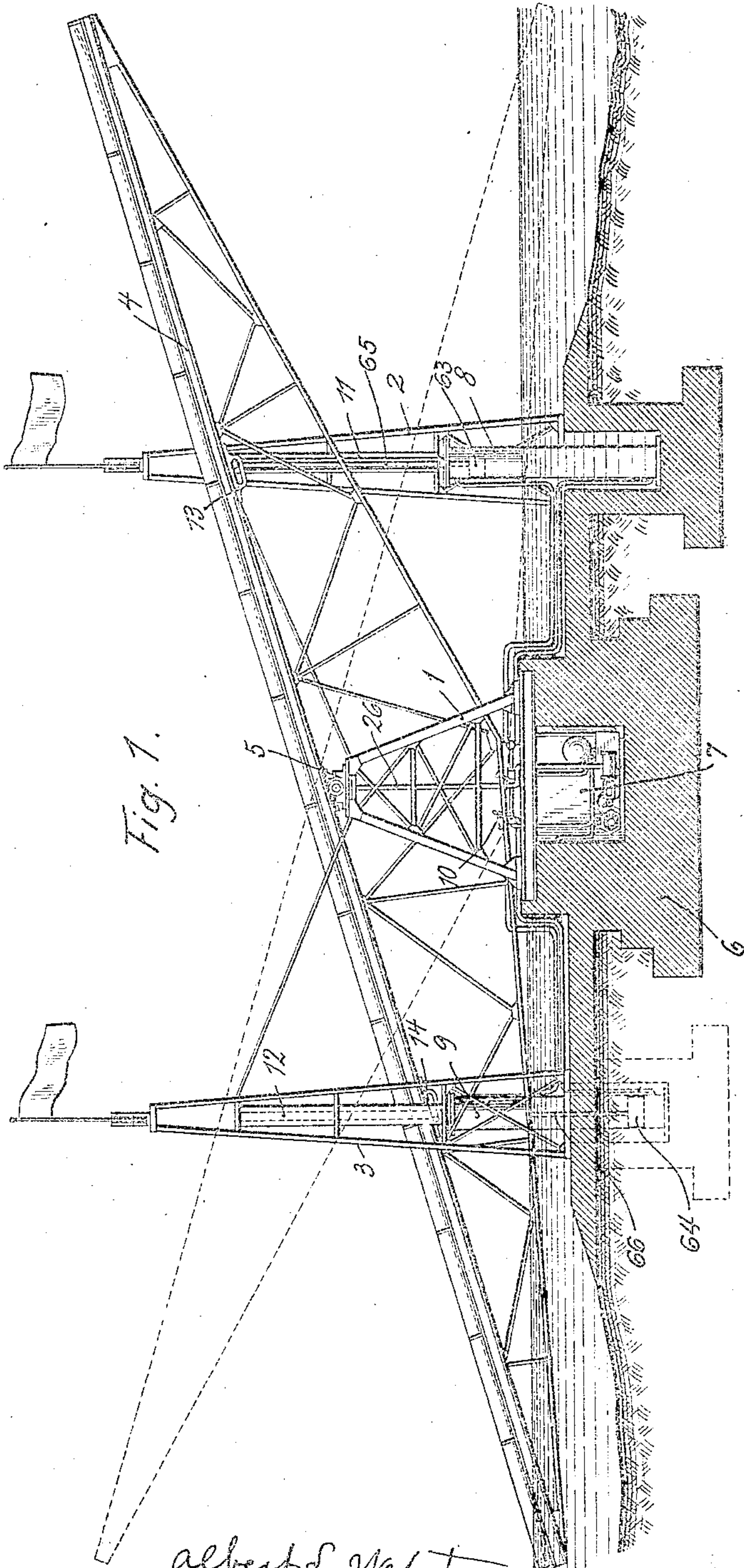
AMUSEMENT DEVICE.

APPLICATION FILED JAN. 7, 1904.

4 SHEETS—SHEET 1.



Witnesses
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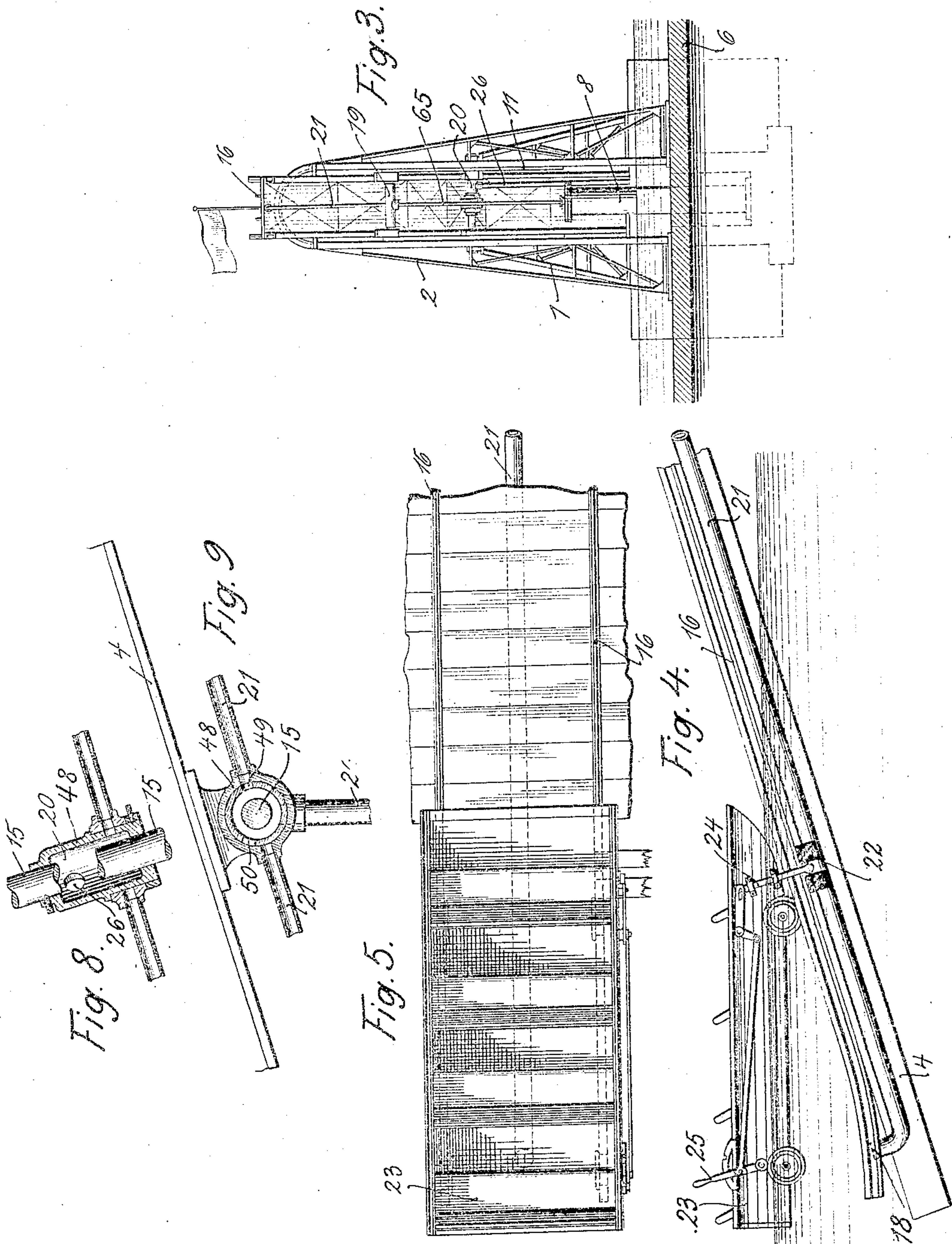
PATENTED JUNE 14, 1904.

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AMUSEMENT DEVICE.

APPLICATION FILED JAN. 7, 1904.

NO MODEL.

4 SHEETS—SHEET 2.



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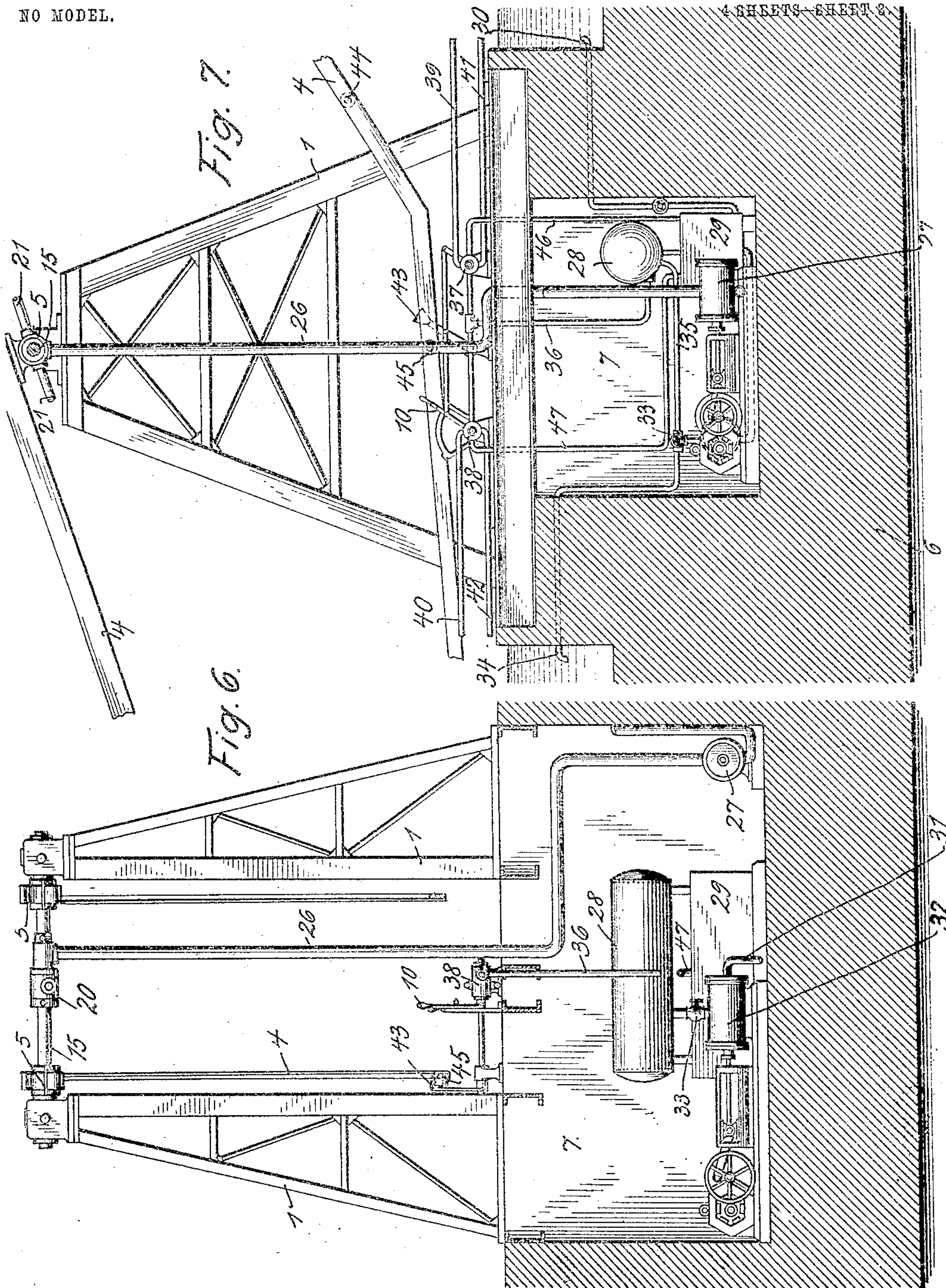
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AMUSEMENT DEVICE.

APPLICATION FILED JAN. 7, 1904.

NO MODEL.



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No. 762,566

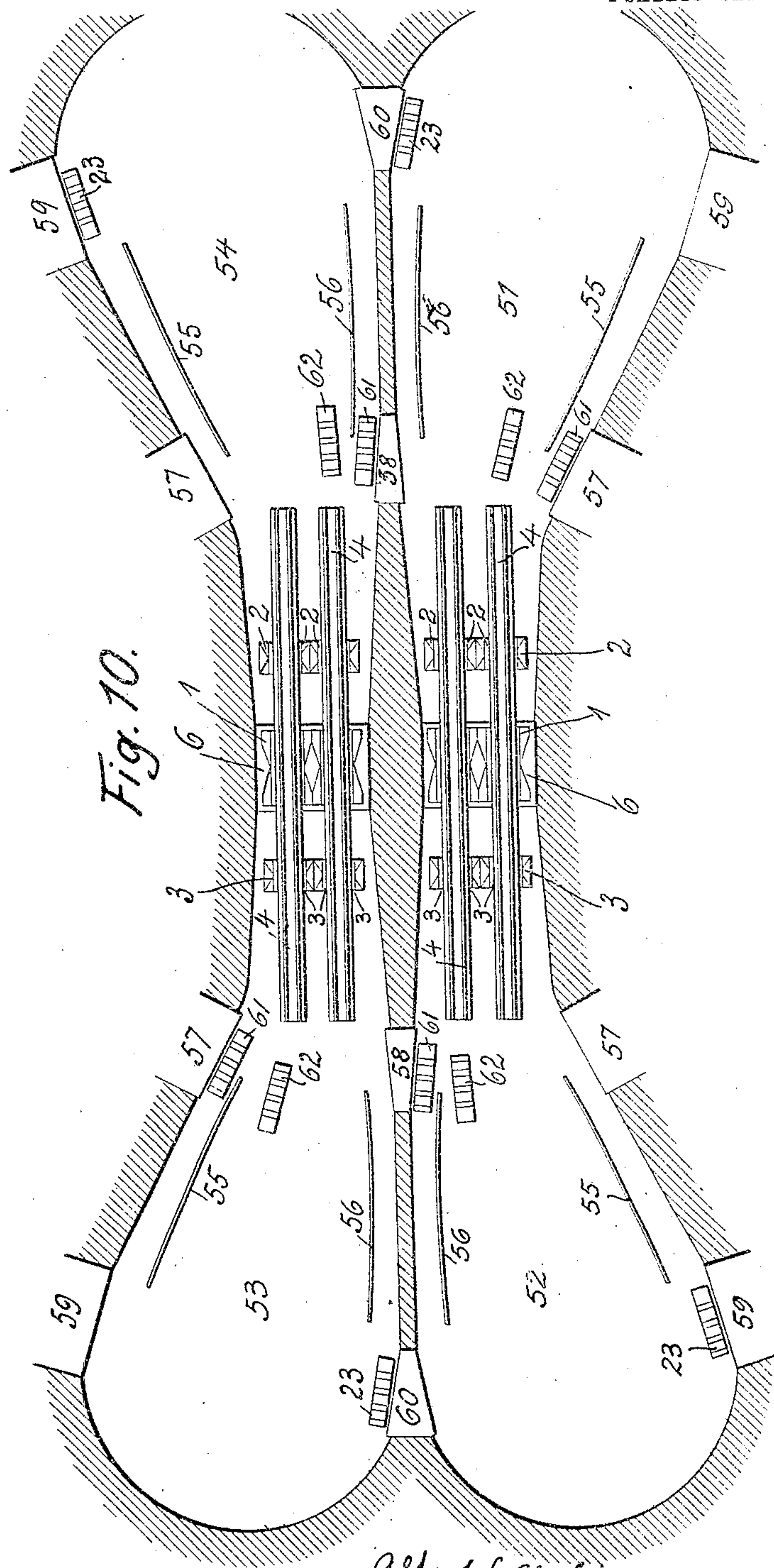
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A. L. WEBSTER & J. E. H. HYDE.
AMUSEMENT DEVICE.

APPLICATION FILED JAN. 7, 1904.

NO MODEL.

4 SHEETS—SHEET 4.



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UNITED STATES PATENT OFFICE.

ALBERT L. WEBSTER, OF NEW YORK, AND JOHN E. HINDON HYDE, OF
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AMUSEMENT DEVICE.

SPECIFICATION forming part of Letters Patent No. 762,566, dated June 14, 1904.

Application filed January 7, 1904. Serial No. 188,034. (No model.)

To all whom it may concern:

Be it known that we, ALBERT L. WEBSTER, residing in the city and county of New York, and JOHN EDMUND HINDON HYDE, residing in Richmond Hill, county of Queens, State of New York, citizens of the United States, have jointly invented a certain new and useful Amusement Device, of which the following is a specification.

The object of our invention is to create a device which will afford amusement, and it is illustrated in the accompanying drawings, in which similar numerals of reference refer to similar parts throughout the several views.

Figure 1 is a side view, partly in section, of the frame of the device and its working mechanism. Fig. 2 is a plan view of Fig. 1. Fig. 3 is an end view of one end of the device, showing the oscillating frame at its limit of height. Fig. 4 is a side view of one of the ends of the oscillating frame with a boat or other vehicle in locked position ready for ascension. Fig. 5 is a plan view of Fig. 4. Fig. 6 is a cross-section of Fig. 7. Fig. 7 is a longitudinal section of the machinery for operating the oscillating frame and its attachments. Fig. 8 is a detailed drawing, part in section, of the valve governing the water-flow over the floor of the frame. Fig. 9 is a cross-section of the valve shown in Fig. 8. Fig. 10 is a plan view of the entire plant.

The design of the invention is to provide an oscillating frame adapted to receive at one end, when that end is in its lowest position, a boat or other vehicle, and then by oscillation of the frame raise such vehicle to a height from which it is subsequently released and allowed to slide down the frame to the other end.

Referring to the drawings, the oscillating braced frame 4 is mounted pivotally upon a bearing 5, supported by the braced standards 1 and 1, resting upon and secured to the foundation 6. The frame 4 supports a platform and, as shown in the drawings, bears rails composing a track 16 upon its surface, although rails are not an essential feature. The swinging frame and platform are caused to oscillate in the bearings 5, attached to shaft

15, by two hydraulic cylinders or elevators 8 and 9, and in the manner of ordinary hydraulic elevators each of them acts alternately to raise one end of the swinging frame. These hydraulic elevators are operated by an attendant by means of the hand-lever 10, actuating suitable valves through which water is pumped (or delivered by other pressure) through connecting-pipes by the hydraulic pump 32 to the pressure-tank 28, and thence alternately to the hydraulic cylinders 8 and 9. The cylinders 8 and 9 contain the piston 63 64, having piston-rods 65 and 66, having cross-heads 19, which travel in the guides 11 and 12, sustained by the standards or frames 2 and 3 and guided therein by two pins which travel in the slots 13 and 14, secured to the swinging frame 4.

The engine-room, from which the oscillating frame 4 is operated, is illustrated in Figs. 1, 6, and 7.

Referring to Figs. 4 and 5 more especially, 23 is a boat or other vehicle adapted to be propelled by a paddle or other means until it rests over and upon the lowered end of the platform of the oscillating frame 4, and in the case illustrated this boat has wheels which may be brought to rest upon the rails of the track 16. When in position, the boat is locked by means of the joint lever and pin 24, operated by the hand-lever 25, so as to push the locking-pin into the space existing between the ends of the two beams 22, projecting from the side of the platform of the oscillating frame 4. When the boat or other vehicle has been lifted to its height of ascension on either end of the oscillating frame 4, the operator withdraws the locking-pin by means of the handle 25 and lever 24 from its locked position, and the vehicle rolls or slides down the incline to the other end of the platform of the swinging frame 4 and is there launched onto the surface of a body of water, as illustrated in the drawings, or onto permanent rails or other road-bed, as desired.

Referring to Fig. 10, which is a ground plan of the apparatus, there are four sets of the frames 4 4, shown with their guides 3 and 2, in which the frames are guided in their as-

cent and descent. Preferably each of the frames 4 should be operated by its own two elevators, so as to be independent of each other in the ascending and descending of either end of such swinging frames, though, if desired, two of the swinging arms may be operated jointly. Referring to the same figure, 57, 58, 59, and 60 are landings on the shores of the lagoons 51, 52, 53, and 54, where the boats 23, 6, and 63 receive and unload passengers. The guides 55 and 56 keep the incoming boats about to be hoisted from coming into collision with the descending boats which have been discharged into the lagoons. Thus the boats 62 are represented as having just been discharged after their descent from the elevated ends of their frames 4, while the boats 61 are about to enter upon the lower ends of the frames 4, so as to be locked into position and elevated upon such ends. The boats 23 are being loaded or discharging passengers.

Referring to Figs. 4, 5, 7, 8, and 9, the pipe 21 is shown as extending under the platform of the swinging frame 4 and opening through and upon the ends of the platform of said frame, so as to discharge water upon its platform at its end then uppermost, so as to allow such water to flow over and down upon such platform and the rails 16, mounted thereon. This water-supply is furnished by the automatically-controlled (or other pressure-supply) pump 27, Figs. 6 and 7, through the standing pipe 26 to the valve-chamber 20, having the casing 48, attached to the shaft 15, with the inner lining containing orifices 49 and 50, so that, as illustrated in Fig. 9, when the platform on the frame 4 is in the position of incline shown in the figure the water being delivered through pipe 26 is admitted to the valve-chamber 20 through the orifices 49 to the elevated branch pipe 21, flows there-through and up to and over the upper end of said platform through orifice 17, down the incline, when the oscillating frame 4 reverses its position, port 49 closes, and the passage-way to the other arm is opened and the water flows through orifice 50 in the valve-chamber 20 and into the ascending arm through pipe 21, which allows the water to flow through outlet 18, over and upon and down the platform of the frame 4 from its other end. Numbers 17 and 18, Figs. 2 and 4, show these outlets for the water-supply to the platform of the swinging frame 4.

Referring to Figs. 6 and 7, the operating-lever 10, controlled by an attendant, operates the four-way valves 37 and 38 to apply hydraulic pressure alternately to the hydraulic cylinders 8 and 9 of Fig. 1 to cause the frame 4 to oscillate at the will of the attendant. The hydraulic pump 32 draws water from the surge-tank 29 through suction-pipe 31 and delivers water through its discharge-pipe 35 into the pressure-tank 28, and thence through

pressure-pipe 36 to the four-way control-valves 37 and 38. The control-valves 37 and 38 are operated simultaneously through levers and the connecting-arm joining them to the operating-lever 10. The four-way valves 37 and 38 are arranged with ports or orifices in the interior of the same, so that the water in pipe 36 will in one position of the operating-lever 10 be delivered through valve 37 to pipe 39, connecting with the top of cylinder 8, thereby exerting pressure on the top of piston 63, while at the same time the water in pipe 36 will pass through the four-way valves 38 into pipe 42, connecting with the bottom of cylinder 9, thereby exerting pressure on the bottom of piston 63, thus causing one end of the oscillating frame to rise and the other end to fall. At the same time that pressure is exerted on the top of piston 63 and on the bottom of piston 64, as described, the bottom of cylinder 8 and piston 63 are relieved of pressure through pipe 41, four-way valve 37, and pipe 47, discharging into the surge-tank 29, and the tops of cylinder 9 and piston 64 are relieved of pressure through pipe 40, four-way valve 38, and pipe 47, discharging into surge-tank 29. By a reversal of lever-arm 10 the pipes 40 and 41 convey pressure to the top of cylinder 9 and bottom of cylinder 8, respectively, and the pipes 42 and 39 release the pressure from the bottom of cylinder 9 and top of cylinder 8, respectively. When the oscillating frame 4 is inclined in the position shown in Fig. 7, the operation of the device to elevate the lower end of the frame 4 is substantially as follows: The hydraulic pump 32 draws water through suction-pipe 31 from the surge-tank 29 and delivers it to the pressure-tank 28, thence through pipe 36 to the four-way valves 37 and 38, through the four-way valve 38, through pipe 42 into the bottom of the cylinder 9, exerting pressure on piston 64, and raises the same, with the piston-rod 66, attached thereto, thereby raising the lower end of the oscillating frame 4. The contents of the upper end of cylinder 9 escape through pipe 40 and through the ports in the four-way valve 38 to pipe 47 and thence into the surge-tank 29. At the same time the water under pressure is being delivered at the bottom of the cylinder 9 water under pressure is being delivered at the top of cylinder 8 from the pressure-cylinder 28 through pipe 36, four-way valve 37, and pipe 39, thus exerting pressure on the top of piston 63, causing it to fall, and with it the piston-rod 65, attached to the upper end of the oscillating frame, thus pulling down the upper or raised end of the oscillating frame at the same time the contents of the lower portion of cylinder 8 are being emptied and delivered through pipe 41, the four-way valve 37, and pipe 46 to the surge-tank 29. The pump 32 is to be provided with an automatic device arranged to maintain a constant

pressure in the pressure-tank 28. To prevent accident, the four-way valves 37 and 38 are arranged to be automatically controlled by the oscillating frame 4 through the lever-arm 43, with the connecting-bars shown. The rollers 44 and 45 are attached to a portion of the oscillating frame in such a manner as to engage the lever-arm 43 and automatically operate the four-way valves 37 and 38 to arrest the motion of the oscillating frame when the end that is falling has reached any desired position at the limit of its oscillation. The valve 33 on the discharge-pipe of the pump 32 is arranged so that the surge-tank 29 can be emptied through the operation of the pump 32 and discharged through pipe 34 into the lagoon.

The pressure-tank 28 is to be provided with a valve, through which it can be emptied and drained into the surge-tank 29.

The operating medium may be air or steam or other liquid or fluid in place of water.

The tracks on the oscillating frame and platform are shown in Fig. 2 as having flaring ends 67 to permit easy access of the vehicle to and upon said rails.

Of course various modifications of our device can be made which would come within the spirit of our invention. Thus instead of boats to receive the passengers sleds or cars or other vehicles could be provided, which instead of being launched into the water in the specified manner shown and described could slide by gravity onto a prolongation of the rails of the oscillating frame, but which would be sufficiently on the ground so as to give a run to the vehicle after its discharge from the rails of the oscillating structure. So, also, the vehicle may be launched from the oscillating frames upon ice, whether natural or artificial, or upon a snow-covered slide. Still, again, the vehicle may be discharged upon a surface which leads to the point of loading a vessel or car or other places where it is desired to convey merchandise. Nor is it necessary that the platform of the oscillating frame be provided with rails, for, if desired,

such platform may be made smooth like a toboggan-slide and the vehicle slide down thereon either on wheels or runners and even on its own bottom. Again, the track upon which the vehicle slides over the inclined surface of the platform may be curved either latitudinal or perpendicular to the platform, so as to cause varying grades during the descent and varying lateral motion to the vehicle. Still, again, the platform of the oscillating frame may be roofed over, so as to give the effect of running through a tunnel.

A modification could be made in which the oscillating frame would receive its up-and-down motion by means of ropes coiled around pulleys driven by power. So, also, the device can be used to transport commodities.

Having thus described our invention, what we claim is—

1. The combination in an amusement, or other device, of one or more oscillating frames each having a platform thereon and one or more removable vehicles adapted to enter upon said platform, to be locked in position and to be raised upon said platform, and to thence pass when unlocked down said platform from the elevated end to the lower end and to be discharged therefrom; and means for operating the same, substantially as described.

2. The combination in an amusement device of one or more oscillating frames having a platform thereon and boats adapted to enter upon and be raised by one end of said frame or frames and to thence slide down said platform from the elevated end to the lower end, and means for operating the same, together with a lagoon or water-basin having landings into which said boats are discharged on their descent from said platforms and from which said boats enter for their subsequent elevation, substantially as described.

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