

Sept. 20, 1960

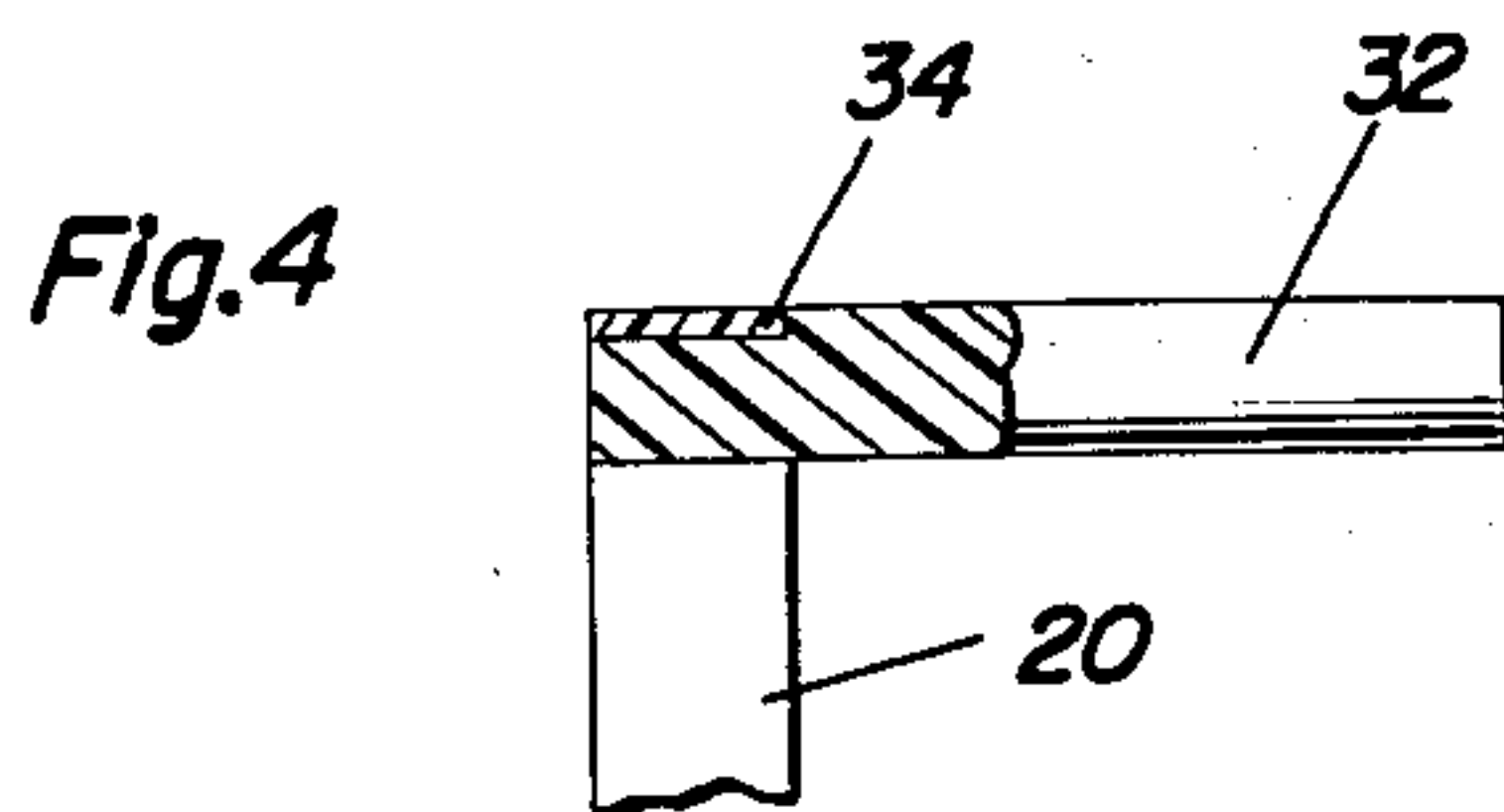
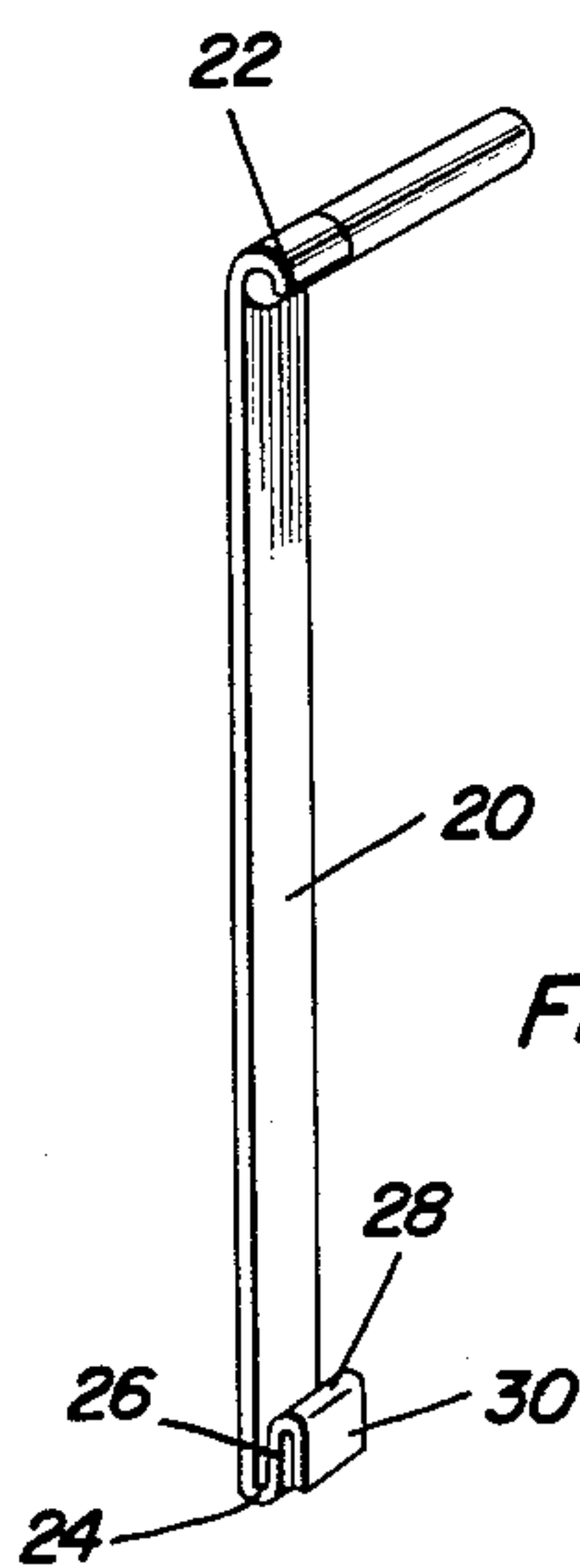
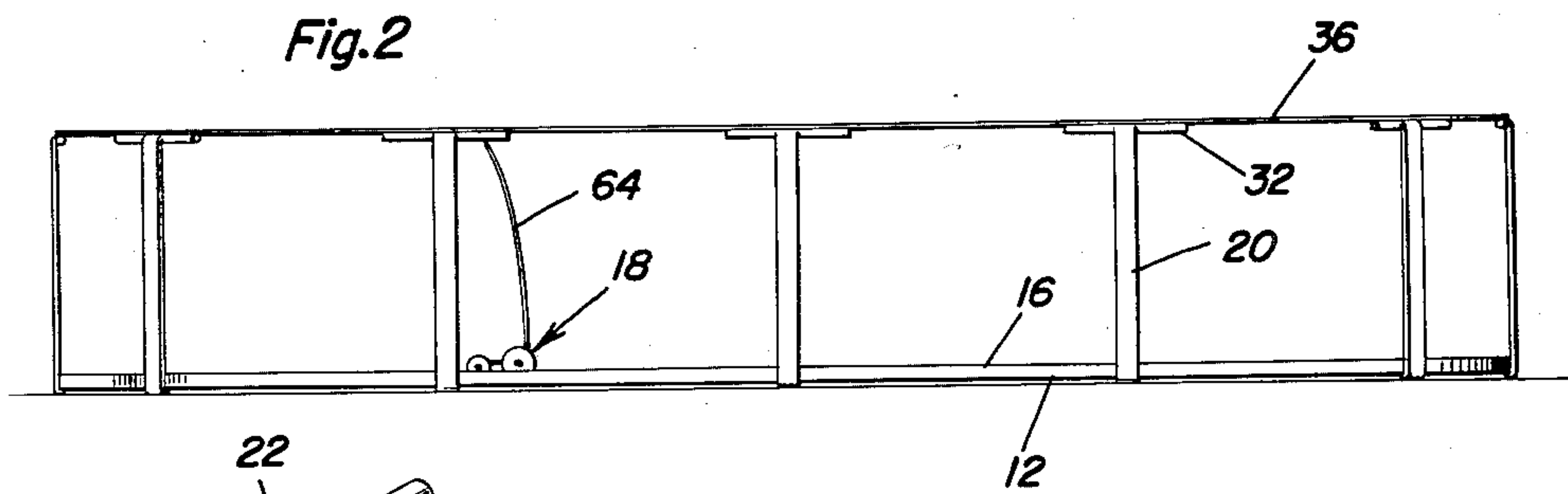
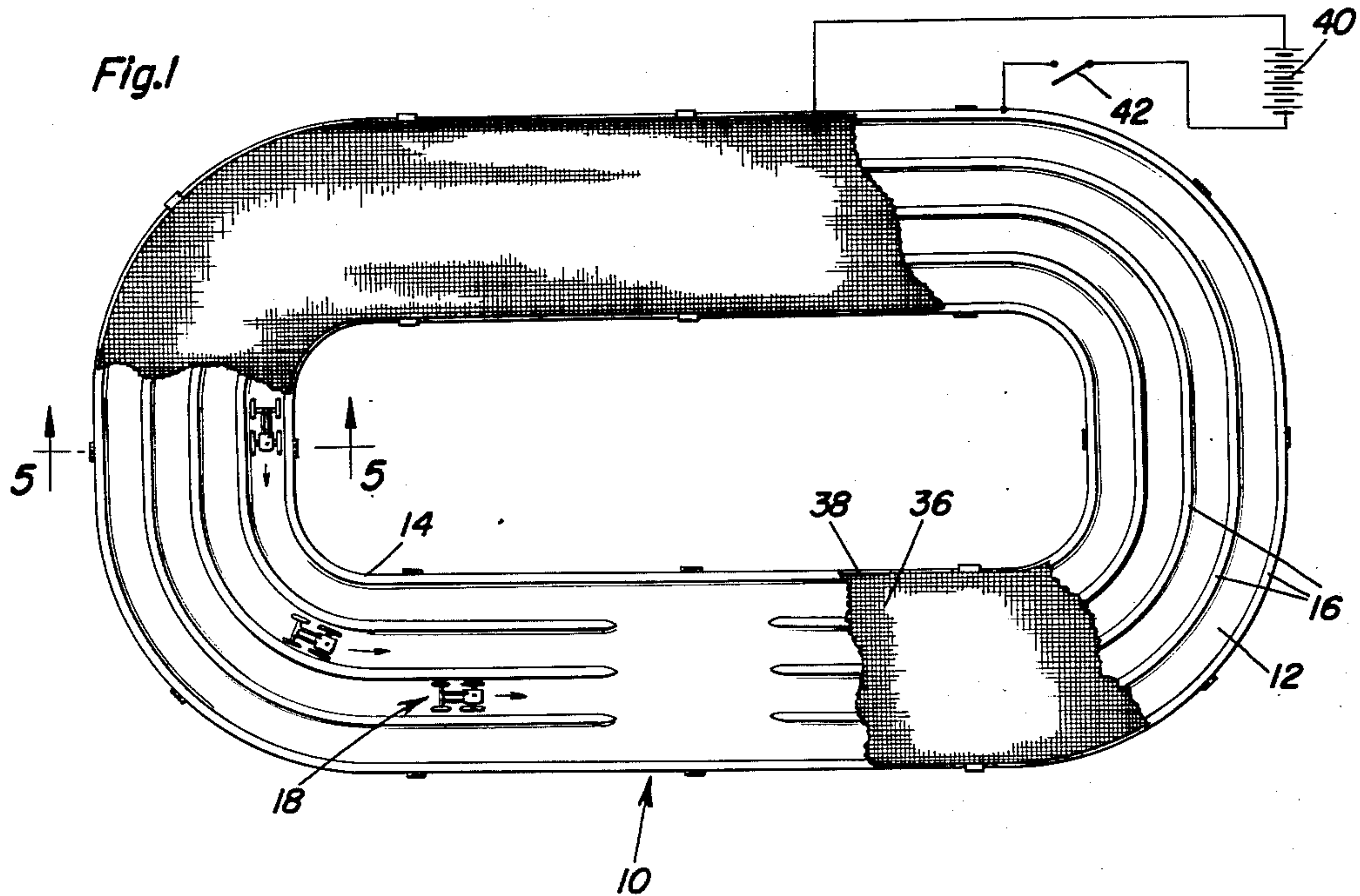
L. J. TROHA

2,952,942

RACING TOY

Filed May 14, 1958

2 Sheets-Sheet 1



Louis J. Troha
INVENTOR.

BY *Almon A. O'Brien*
and Harvey R. Jacobson
Attorneys

Sept. 20, 1960

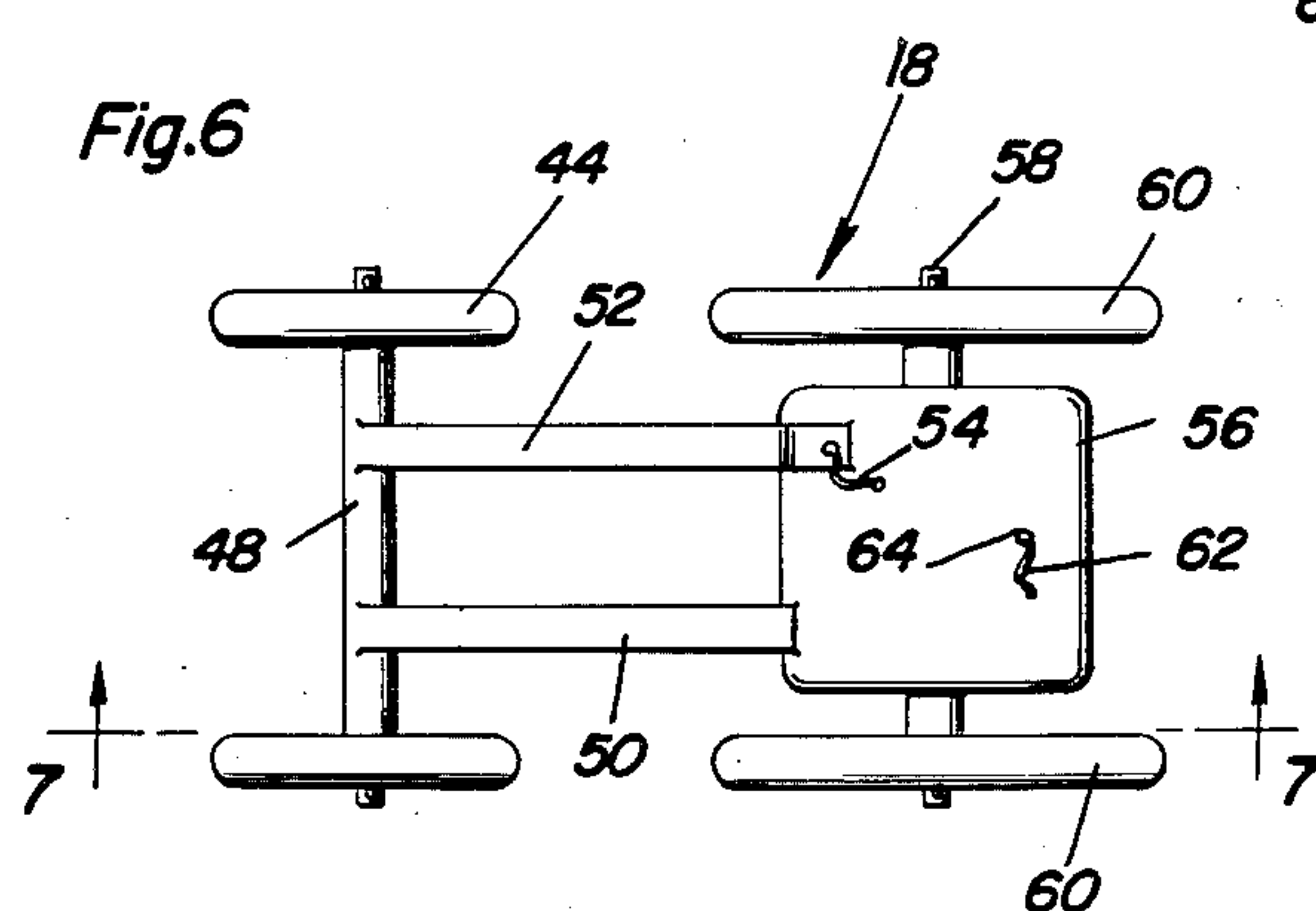
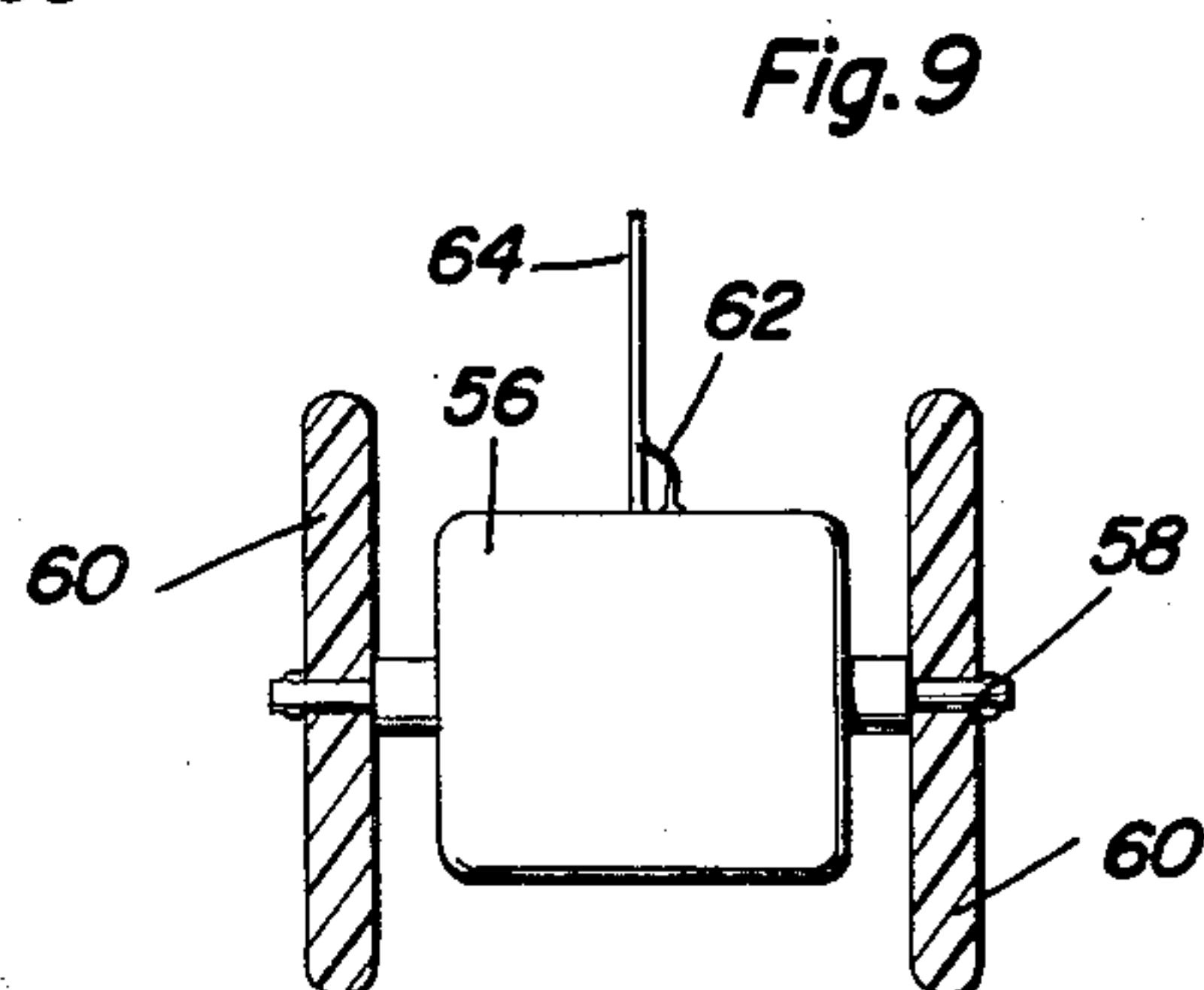
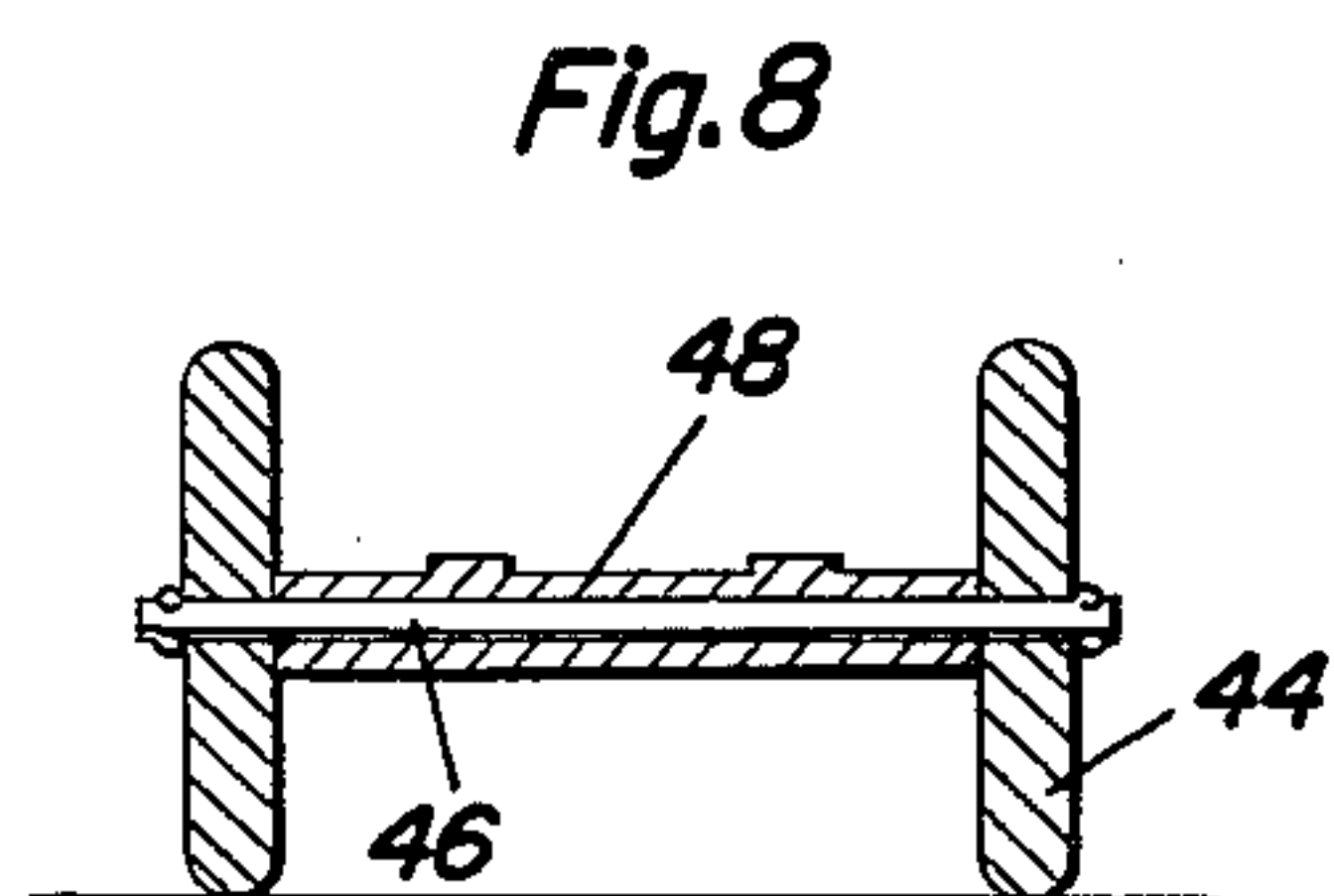
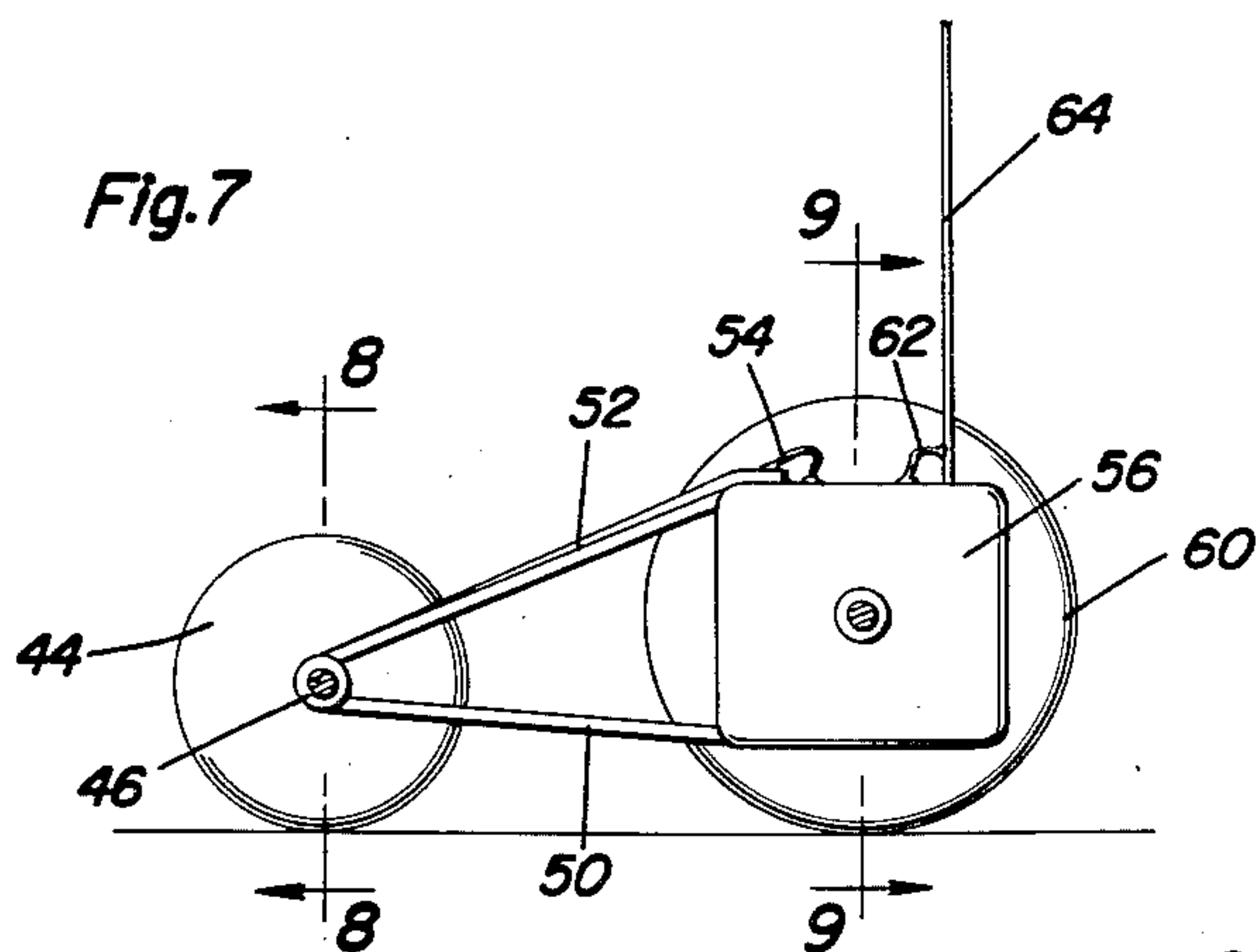
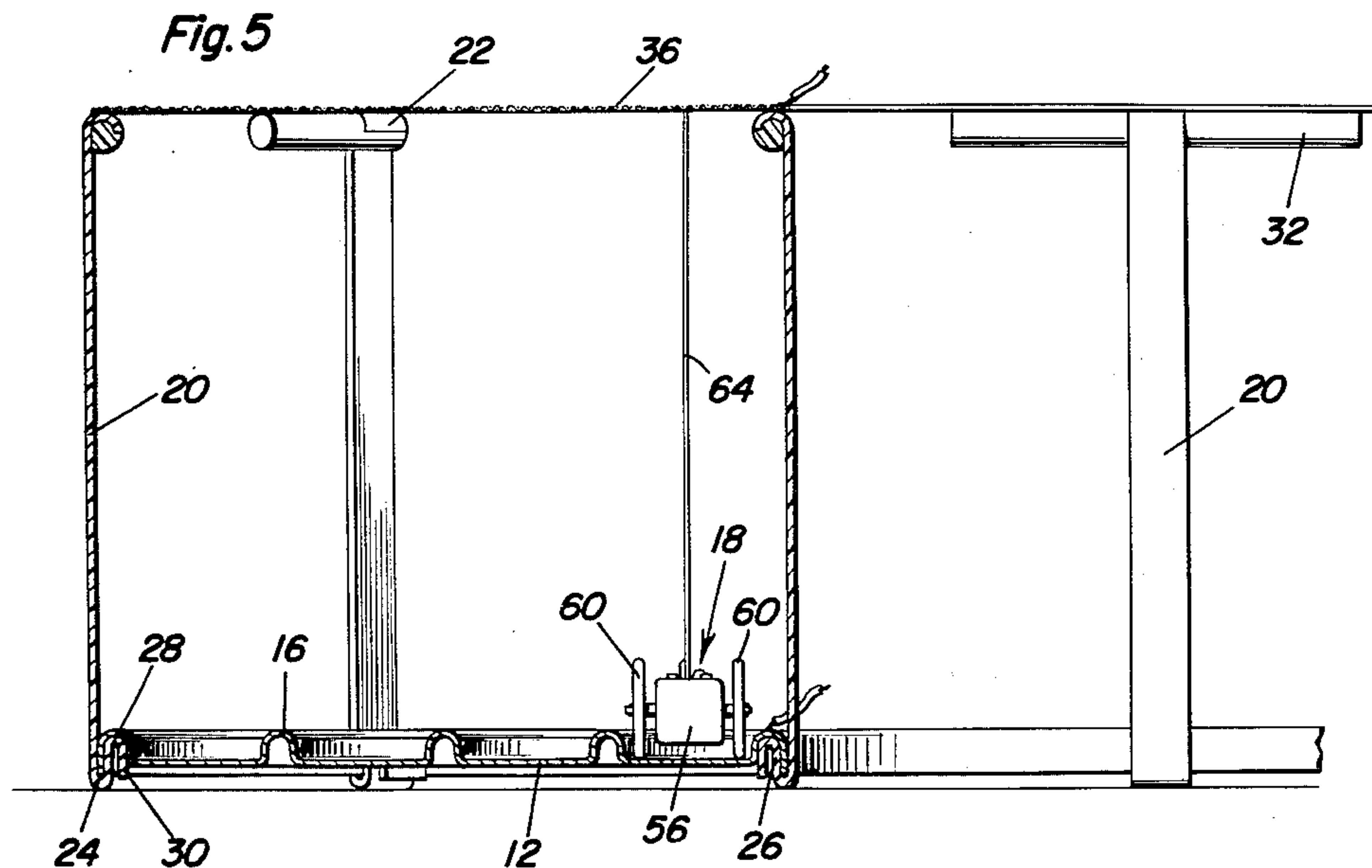
L. J. TROHA

2,952,942

RACING TOY

Filed May 14, 1958

2 Sheets-Sheet 2



Louis J. Troha
INVENTOR.

BY *Almonce A. O'Brien*
and *Harvey B. Jacobson*
Attorneys

1

2,952,942

RACING TOY

Louis J. Troha, 23501 Geneva, Oak Park, Mich.

Filed May 14, 1958, Ser. No. 735,287

4 Claims. (Cl. 46—243)

The present invention generally relates to a toy and more particularly to a racing toy incorporating in its construction a simulated race track having a plurality of tracks or paths thereon with a simulated vehicle movable on each track which is powered by electrical energy so that the movement of the vehicles around the race track will closely simulate the movement of vehicles in an actual race thereby providing a highly entertaining and novel racing toy.

An object of the present invention is to provide a racing toy which is extremely interesting and relatively inexpensive to manufacture and use.

Another important feature of the present invention is to provide a racing toy in which the track is provided with a series of parallel raised portions for guiding movement of vehicles thereon and with the track also providing one terminal of an electric circuit for supplying electrical energy to a motor on each of the vehicles for powering the vehicles with there being means overhead for forming the second terminal for completing an electric circuit for driving the vehicles.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a plan view of the racing toy of the present invention with portions thereof broken away;

Figure 2 is a side elevation of the construction of Figure 1 illustrating the relationship of the track, overhead screen, vehicles and vertically extending contact on the vehicles;

Figure 3 is a perspective view of the supporting brackets for the overhead screen;

Figure 4 is a detail sectional view illustrating the manner in which the brackets are attached to the support rods for the screen;

Figure 5 is a detail sectional view taken substantially upon a plane passing along section line 5—5 of Figure 1 illustrating the details of construction of the trackway, the support brackets and the screen forming the upper trackway together with the relationship of the vehicle to the structure;

Figure 6 is a plan view of one of the vehicles;

Figure 7 is a sectional view taken substantially upon a plane passing along section line 7—7 of Figure 6;

Figure 8 is a detail sectional view taken substantially upon a plane passing along section line 8—8 of Figure 7 illustrating the metallic construction of the wheels and axles; and

Figure 9 is a sectional view taken substantially upon a plane passing along section line 9—9 of Figure 7 illustrating the construction of the drive wheels and the relationship thereof to the drive motor.

Referring now specifically to the drawings, the numeral 10 generally designates the racing toy of the present in-

2

vention which includes an elongated oval shaped plate 12 having a central oval shaped open area 14 defining a generally oval shaped trackway. The plate 12 is made of a conductive metal and is provided with a plurality of parallel upwardly extending inverted U-shaped ribs or ridges 16 formed therein thus defining a plurality of pathways on the upper surface of the plate 12 with the pathways being concentric with each other with each pathway receiving a vehicle generally designated by the numeral 18. The plate 12 may be flat throughout its length or the curved ends may be banked with the straightaways flat if desired, with a portion of ribs 16 omitted from the straightaways.

Extending upwardly from the plate 12 at longitudinally spaced intervals is a plurality of vertically extending support brackets 20 having a hook shaped upper end 22 and having a reverse bend 24 on the lower end thereof continuing into an upturned portion 26 and a second reverse bend 28 and a downwardly extending portion 30 parallel with the upwardly extending portion 26 and with the bracket 20 thus defining a downwardly opening slot. This construction receives the outer rib 16 with the outer flange of the outer rib being received between the bracket 20 and the inner surface of the upwardly extending portion 26 with the inner surface of the reverse bend 24 receiving the lower end of the outer flange. The reverse bend 28 and the downwardly extending portion 30 are in frictional engagement with the interior of the outer rib 16 thus mounting the bracket 20 on the plate 12. Thus, the brackets 20 form a support for the plate 12 and space the same slightly from a supporting surface. The hook-shaped end 22 at the upper end of the bracket 20 is secured to a supporting rod 32 with the supporting rod 32 having a recess 34 receiving the hook shaped end 22 with the hook shaped end 22 being bonded thereto in any suitable manner. Supported by the rods 32 as well as the hook shaped ends 22 is an elongated oval shaped screen member 36 having an enlarged central open area of oval shape 38 thus defining a screen member substantially the same shape as the oval shaped plate 12 and which overlies the trackway formed by the plate 12 and may be considered an overhead trackway with the screen 36 also being conductive metal. A supply of electrical energy such as a battery 40 has one side thereof connected to the screen 38 and the other side thereof connected to the plate 12 as shown in Figure 1 and a switch 42 may be provided for interrupting the electrical circuit.

Referring now specifically to Figures 6—9, each of the vehicles 18 includes a pair of rear wheels 44 constructed of a conductive metal together with a transverse axle 46 and sleeve 48 also of conductive material. Extending forwardly from the sleeve 48 is a brace member 50 and a conductor bar 52 connected to a terminal 54 of an electric motor 56. The electric motor 56 has a power shaft 58 extending from both sides thereof with the power shaft 58 having plastic wheels 60 at remote ends thereof. The other terminal of the motor designated by the numeral 62 is connected with an elongated upwardly extending flexible contact member 64 which extends upwardly and engages with the screen 36 for completing the electric circuit through the plate, rear wheels 44, axle 46, sleeve 48, contact bar 52, terminal 54, motor 56, terminal 62, contact 64, and screen 36.

The device is symmetrical for ease of manufacture and the device may be powered by a small voltage electric motor and a suitable battery. The upstanding rib 16 will guide the movement of the vehicles and while the racing toy is relatively inexpensive to manufacture, the same will be extremely interesting to children as well as grownups.

The foregoing is considered as illustrative only of the

3

principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A racing toy comprising a generally oval shaped metal trackway having a plurality of concentrically arranged upstanding ribs defining a plurality of pathways, a plurality of vehicles movably disposed on said trackway with the upstanding ribs defining the path of movement of the vehicles, a screen detachably supported from said trackway in vertically spaced relation and completely overlying the trackway, said trackway being energized, means on each vehicle for electrical contact with the trackway, said screen forming a part of the electrical circuit for energizing the trackway, and an upwardly extending contact on each vehicle for engagement with the screen thus completing the circuit to the vehicle, each vehicle including an electric motor for powering the same when the circuit is completed.

2. The combination of claim 1 wherein a plurality of upstanding brackets of insulating material interconnect the trackway and the screen for supporting the screen in spaced relation to the trackway.

3. The combination of claim 2 wherein each of said vehicles includes a pair of enlarged plastic drive wheels having a motor supported therebetween with the plastic wheels being directly mounted on the remote ends of the output shaft of the motor, a pair of metallic wheels supported behind the motor and in electrical contact with the trackway, contact means interconnecting the metallic wheels and the motor, said upstanding contact member being flexible and connected with the motor and slidingly engaging the screen for completing the circuit through the motor and energizing the motor for driving the plastic wheels.

4

4. A racing toy comprising an oval shaped trackway constructed of metallic conductive material, said trackway having a plurality of concentric upwardly extending ribs thereon defining a plurality of pathways on the upper surface of the trackway, a plurality of vehicles disposed on the trackway for movement in the pathways defined by the ribs with the ribs guiding the movement of the vehicles along the pathways, a screen of conductive material disposed in spaced overlying relation to the trackway, and bracket means of insulating material mounting the screen in parallel relation to the trackway, an electric circuit connected to the trackway and to the screen with the insulating bracket means retaining the screen electrically insulated from the trackway, each vehicle including a pair of drive wheels of insulating material engaging the pathways, a shaft interconnecting the drive wheels, an electric motor mounted directly on the shaft, a pair of metallic wheels disposed in spaced relation to the drive wheels in rolling engagement with the pathway, a conductive connector electrically connected to the motor and to the metallic wheels for connecting the motor electrically to the trackway, and an upwardly extending conductive member mounted on the motor and in sliding contact with the screen for completing the electric circuit for the electric motor for driving the vehicle, said bracket means also extending below the trackway and engaged therewith for supporting the trackway in spaced relation to a supporting surface thereby insulating the trackway from such a supporting surface.

References Cited in the file of this patent

UNITED STATES PATENTS

1,404,168	Stock et al. -----	Jan. 17, 1922
1,856,991	Franklin -----	May 3, 1932
1,982,391	Markey -----	Nov. 27, 1934
2,687,304	Northrop et al. -----	Aug. 24, 1954
2,806,697	Huhn et al. -----	Sept. 17, 1957