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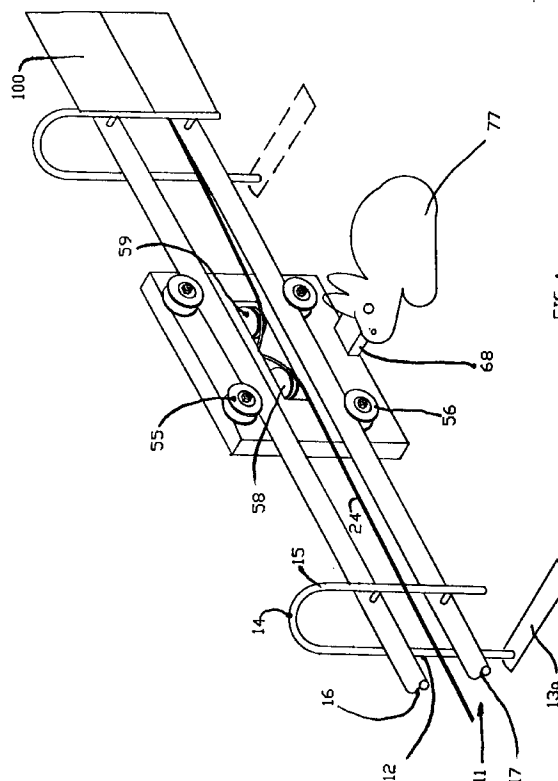
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(54) **A lure device.**

(57) A support apparatus (10) for supporting a lure (77) which apparatus (10) comprises a trolley (50) having wheels (55, 56) for engaging with one or more rails (16, 17); a drive pulley (57) and two associated idler pulleys (58, 59); a drive means for the drive pulley (57). When mounted on the or each rail (16, 17), the drive pulley (57) and the associated idler pulleys (58, 59) are interengageable with an endless stationary cable (24) so that upon actuation of the motor means the trolley (50) moves along the rails (16, 17) relative to the stationary cable (24).



This invention relates to a lure device. In particular it relates to a lure device for use on a greyhound track.

Greyhound tracks are well known. They generally comprise a circular or oval shaped arena surrounded by a spectator area. In the arena, greyhounds are raced from respective traps, located at a start line, to a finish line a predetermined distance away around the track. In order to encourage the dogs to race, a lure is provided which, generally speaking, comprises a silhouette of a hare fixed fast to an endless cable. The cable is usually buried in suitable casing underground with a slot in the casing for enabling a support connecting the lure to the cable to pass through the casing. The lure is set in motion by means of a suitable motor housed in a control centre located at some suitable point on the track which drives the cable on the circuitous pathway around the perimeter of the track. The velocity of the cable will determine the velocity of the lure and there is usually suitable means for varying the velocity of the cable depending on the velocity of the dogs chasing the lure.

The above described system, with slight variation has been in existence for some considerable time. The known system has been found to be generally reliable but only where the track is primarily grass or at least not having a coating of sand thereon. Sand tracks are becoming increasingly popular due to the relative ease of maintenance and also because it promotes a faster velocity from the dogs. However, a significant disadvantage of sand tracks is that the sand can easily enter the slot through which the lure support passes thereby causing significant maintenance problems and frequent breakdowns in operation of the system. One way of overcoming this problem has been the installation of the known system on the internal perimeter of the track as distinct from the external perimeter. However, this internal position of the lure is not favoured by the organisers or by the punters and hence is not very popular.

It is an object of the present invention to overcome these problems.

The invention, therefore provides a support apparatus for supporting a lure which apparatus comprises a trolley having wheels for engaging with one or more rails; a drive pulley and two associated idler pulleys; a drive means for the drive pulley; the arrangement being such that when mounted on the or each rail, the drive pulley and the associated idler pulleys are interengageable with an endless stationary cable so that upon actuation of the motor means the trolley moves along the rails relative to the stationary cable.

The invention will be understood in greater detail from the following description of a preferred embodiment thereof given by way of example only and with reference to the accompanying drawings in which:-

Figure 1 is a perspective view of an apparatus for supporting a lure according to the invention;

Figure 2 is a front elevation of the apparatus of Figure 1 of the drawings;

Figure 3 is a plan view of the apparatus of Figure 2 of the drawings;

Figure 4 is a side elevation of the apparatus of Figure 1 of the drawings;

Figure 5 is a detail of part of a support system for the apparatus of Figure 1 of the drawings; and

Figure 6 is a perspective and detailed view of a part of the apparatus of Figure 1 of the drawings.

Referring now to the drawings, there is shown an apparatus 10 according to the invention which comprises a trolley 50 having a support element 51, a motor (not shown) mounted in a housing 54, a first pair of wheels 55; a second pair of wheels 56, a drive pulley 57 and idler pulleys 58, 59. The motor, which is electrically powered, is mounted on the support element 51 by means of a pair of brackets 60, 61. An electrical cable 62 is connected to the motor the free ends 63, 64 of which cable 62 are connected to a respective electrical brushes 65, 66. Each brush 65, 66 is hingedly attached to a respective brush support member 52, 53.

The brush support member 52 comprises a housing 72 having a spring (not shown) which biases a plunger 73 outwardly from the housing there being conventional means (not shown) to retain the plunger 73 in the housing 72. Essentially, therefore, the plunger 73 is slidably engageable in the housing 72. The free end of the plunger 73 is pivotally attached to a lug 74 to which is fixed fast the brush 65. The brush 65 is electrically isolated from the lug 74. The housing 72 is pivotally attached to one end of a brush support member 75 the other end of which is attached to the plate 51. The brush support 53 is similarly constructed and supports the brush 66.

Also attached to the support element 51, by means of respective axles 76, are the pairs of wheels 55, 56 which are of the flanged type. Projecting from the motor is an axle 67 on which is mounted the drive pulley 57. The support element 51 also has mounted thereon the idler pulleys 58, 59. The axes of the pulleys 57, 58, 59 are in substantially parallel spaced apart relationship being transverse to the axes of the wheels 55, 56. The location of the axes of the pulleys 57, 58, 59 are such as to form a notional triangle with a notional line joining the axes of the idler pulleys 58, 59 forming the base of the triangle and the axis of the drive pulley 57 forming the apex of the triangle.

The pulleys 58, 57 are substantially coplanar; the pulley 59 is slightly non-coplanar relative to the pulley 57.

Pivotally attached to the support plate 51 by means of a lug and pin arrangement 78 is first arm 68 from which projects a skid 69. The arm 68 has one end of a spring 70 attached thereto the other end of which spring 70 is attached to a second arm 71 attached to the plate 51. Further support for the arm 68

is provided by an L-shaped leg member 79 one end of which is welded to or is integral with the arm 68 the other end of which member 79 is pivotally attached to the plate 51 by a lug and pin arrangement 80. Also attached to the arm 68 is a lure 77.

To use the apparatus 10, there is installed preferably on the outer perimeter of a greyhound track a series of main frame supports 11 at distances of approximately 2.5m from each other.

Each support 11 is substantially U-shaped having legs 12 and 15 interconnected by a connecting arm 14. The leg 12 is longer than the leg 15 and thus the end of the leg 12 is embedded in a concrete base 13 located below the ground 13a. The end of the leg 15 is located a distance above the ground 13a. Mounted on the leg 15 are two nut and bolt arrangements 16a, 17a for supporting respective rails 16, 17. The rails 16, 17 are in substantially parallel spaced apart and positioned one above the other.

Mounted on the leg 12 by means of a nut and bolt arrangement 19a is an L-shaped bracket 19 having legs 20, 21. The leg 21 supports an electrically insulating medium 25 having electrically conductive strips 22, 23 embedded therein, each strip 22, 23 having an exposed surface. Mounted on the leg 15 and located between the rails 16, 17 is a cable support element 18. The rails 16, 17, the L-shaped bracket 19, the support medium 25, the strips 22, 23 are all endless and circumscribe the outer perimeter of the greyhound track. If desired an endless fascia 100 could be attached to the legs 15, so as to cover the rails etc. from the general view of the public.

Finally, there is provided a cable 24. The cable 24, which would be endless would simply rest on the supports 18. The cable 24 would be of the type in which a length of 500 metres would have a weight of about 65kg.

The apparatus 10 is lifted into position so that the wheels 55 rests on the rail 16 and the wheels 56 rest on the rail 17. The cable 24 is engaged with the drive pulley 57. In engaging the drive pulley 57, it is important that the cable 24 be in tangential arrangement relative to the pulley 57 at two locations and further that the cable passes virtually around the entire circumference of the pulley 57. The pulleys 58, 57 are substantially coplanar but because the pulley 59 does not share the same plane as that of the pulleys 58, 57, that part of the cable 24 which connects the pulley 58 with the pulley 57 is not in friction engagement with that part of the cable 24 which connects the pulley 57 with the pulley 59.

The electric brushes 65, 66 are placed in electric contact with respective strips 22, 23. The strips 22, 23 are, at some suitable location, connected to a source of electricity controlled by a switch and/or suitable current varying means so as to vary the current and/or voltage in the strips 22, 23.

When electricity is applied to the strips 22, 23, the

motor on the trolley 50 is actuated thereby causing the drive pulley 57 to rotate. Rotation of the drive pulley 57 causes the trolley 50 to move relative to the stationery cable 24 along the rails 16, 17 thereby causing the trolley to move around the greyhound track. The idler pulleys 58, 59 served to guide the cable to and from the drive pulley. The velocity of the trolley 50 may be controlled by varying the current or voltage applied to the strips 22, 23. The purpose of the skid 69 is to prevent the lure 77 from being damaged through contact with any undulating ground. The skid 69 is in contact with the ground and serves to push the arm 68 against the bias of the spring 70. It will be appreciated that the arm 68 projects beyond the plane of the fascia and hence the lure 77 if located in front of the fascia 100 will be easily silhouetted against the preferably plain background of the fascia 100.

The advantages of the invention include the fact that when installed in a track having a sand base, little or no damage is caused to the apparatus 10 by the sand given the relatively simple construction thereof and the lack of movement of the cable 24. By mounting the wheels 55, 56 and the pulleys 57-59 in suitable bearings and further given the fact that the apparatus is located a distance above the ground, the effect of the sand is reduced so considerably as not to present the type of problem heretofore encountered in such installations.

The invention is not limited by or to the specific embodiments described which can undergo considerable variation without departing from the scope of the invention.

Claims

1. A support apparatus for supporting a lure which apparatus comprises a trolley having wheels for engaging with one or more rails; a drive pulley and two associated idler pulleys; a drive means for the drive pulley; the arrangement being such that when mounted on the or each rail, the drive pulley and the associated idler pulleys are interengageable with an endless stationary cable so that upon actuation of the motor means the trolley moves along the rails relative to the stationary cable.
2. A support apparatus as claimed in claim 1 wherein the axis of drive pulley and the axes of idler pulleys are in substantially parallel spaced apart relationship being transverse to the axes of the wheels.
3. A support apparatus as claimed in claim 2 wherein the axes of the pulleys provide for the respective apices of a notional triangle.

4. A support apparatus as claimed in claim 2 or claim 3 wherein the idler pulleys are substantially co-planar and the drive pulley is non-coplanar relative to the idler pulleys. 5
5. A support apparatus as claimed in any of claims 1-4 which further comprises one or more support rails for enabling the wheels to traverse therealong and means for enabling an electrical connection to be made from the support rail so as to power the motor. 10
6. A support apparatus as claimed in claim 5 which further comprises a plurality of u-shaped support elements each having legs of unequal length for supporting the rail or rails, the longer leg being ground engaging and the shorter leg terminating a distance above the ground, each support having means for enabling the cable to rest thereon when not in engagement with the pulleys. 15 20
7. A support apparatus as claimed in claim 6 which further comprises a facia mounted on the shorter leg so as to conceal the rails and the trolley from general view, the facia terminating above the ground so that an arm, one end of which is attached to the trolley and the other end having the lure attached thereto, does not, during travel of the trolley, engage with the shorter leg or the facia thereby permitting the lure to be seen against the background of the facia. 25 30
8. A support apparatus as claimed in claim 7 wherein the arm is pivotally attached to the trolley, biasing means is provided for urging the arm and hence the lure in a ground engaging direction, the lure having a ground engaging skid so that in use, the skid serves to prevent the lure from engaging with the ground which skid traverses the ground including undulating ground which provides a force acting against the biasing means. 35 40

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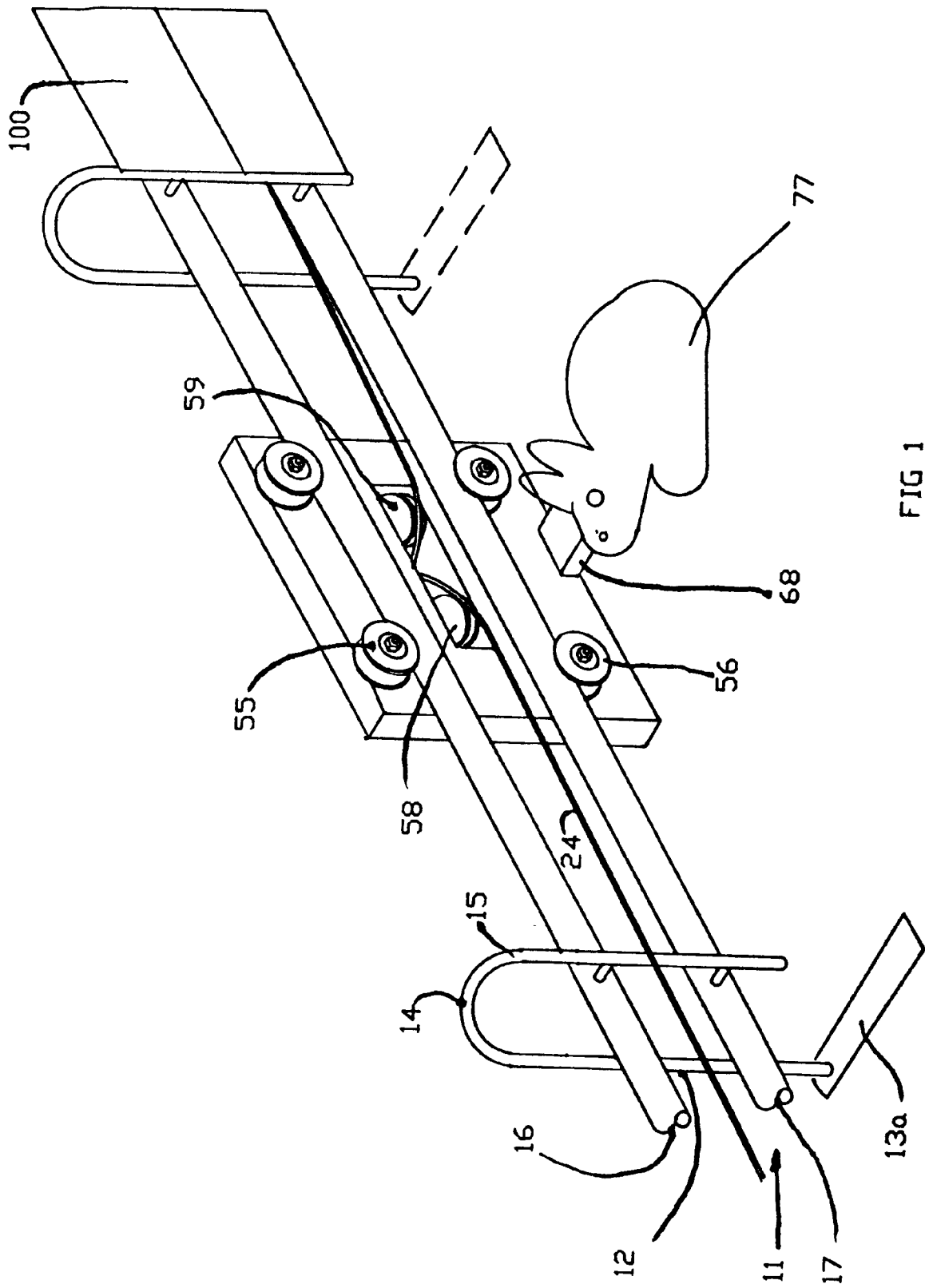


FIG 1

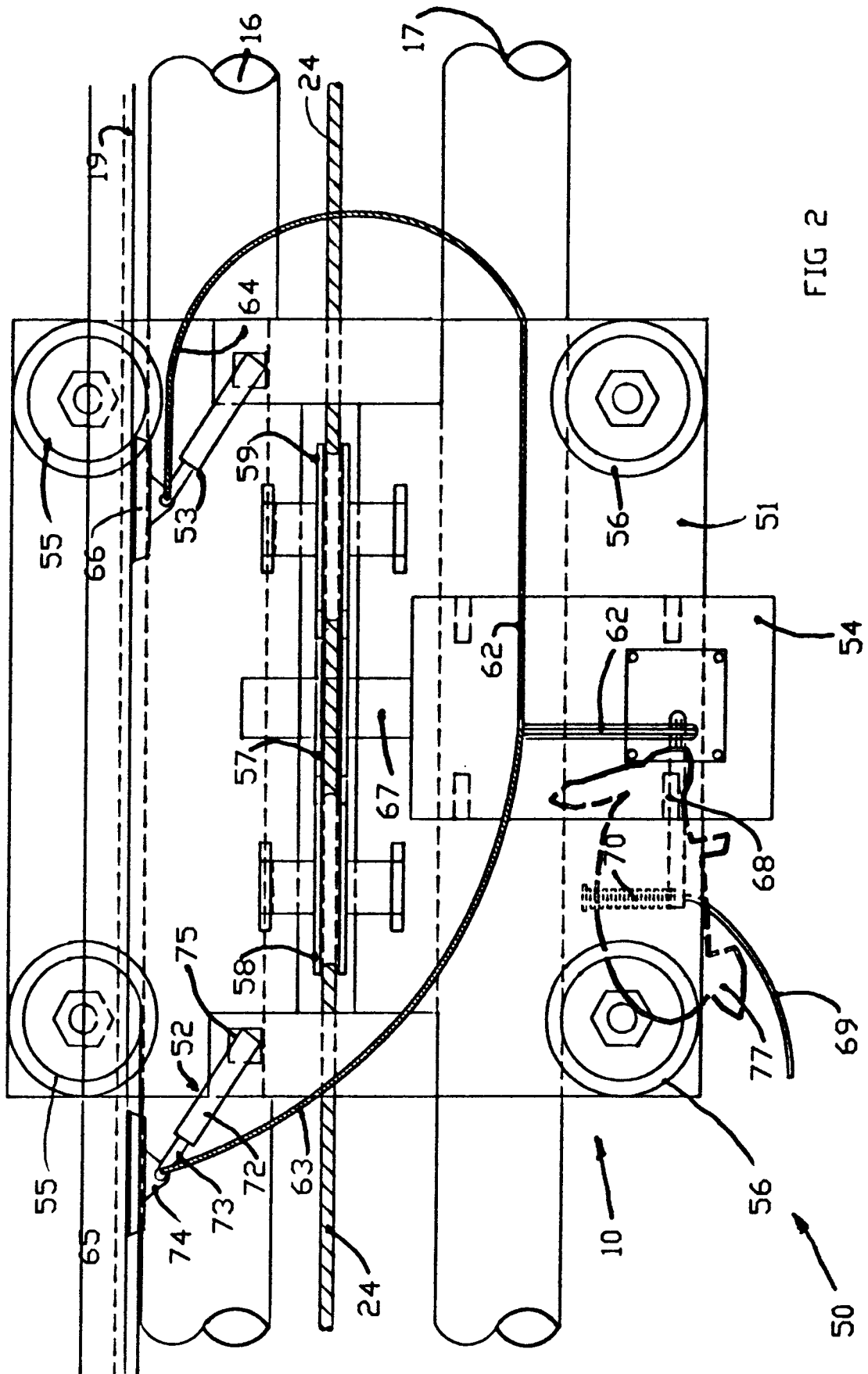


FIG 2

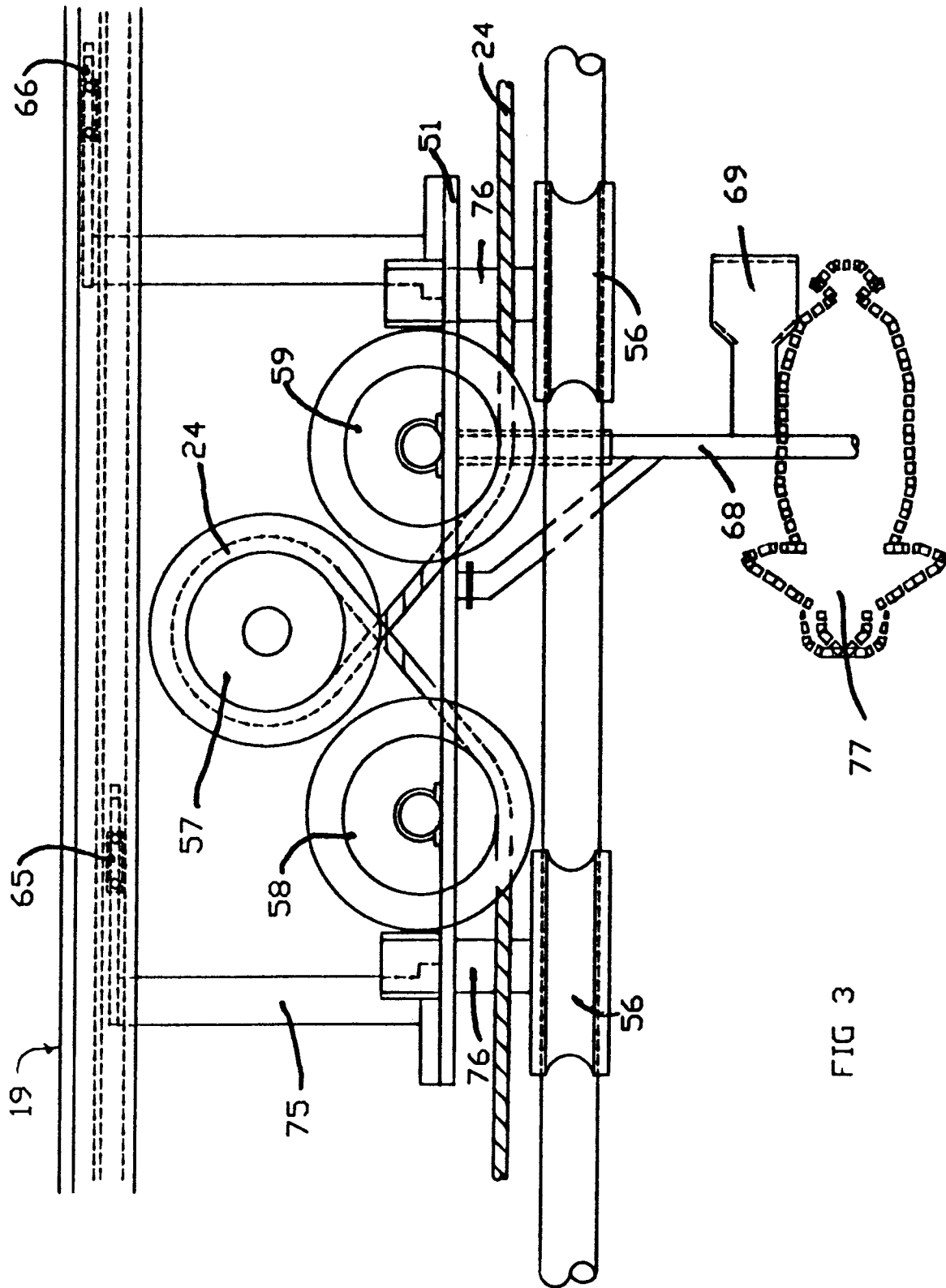


FIG 3

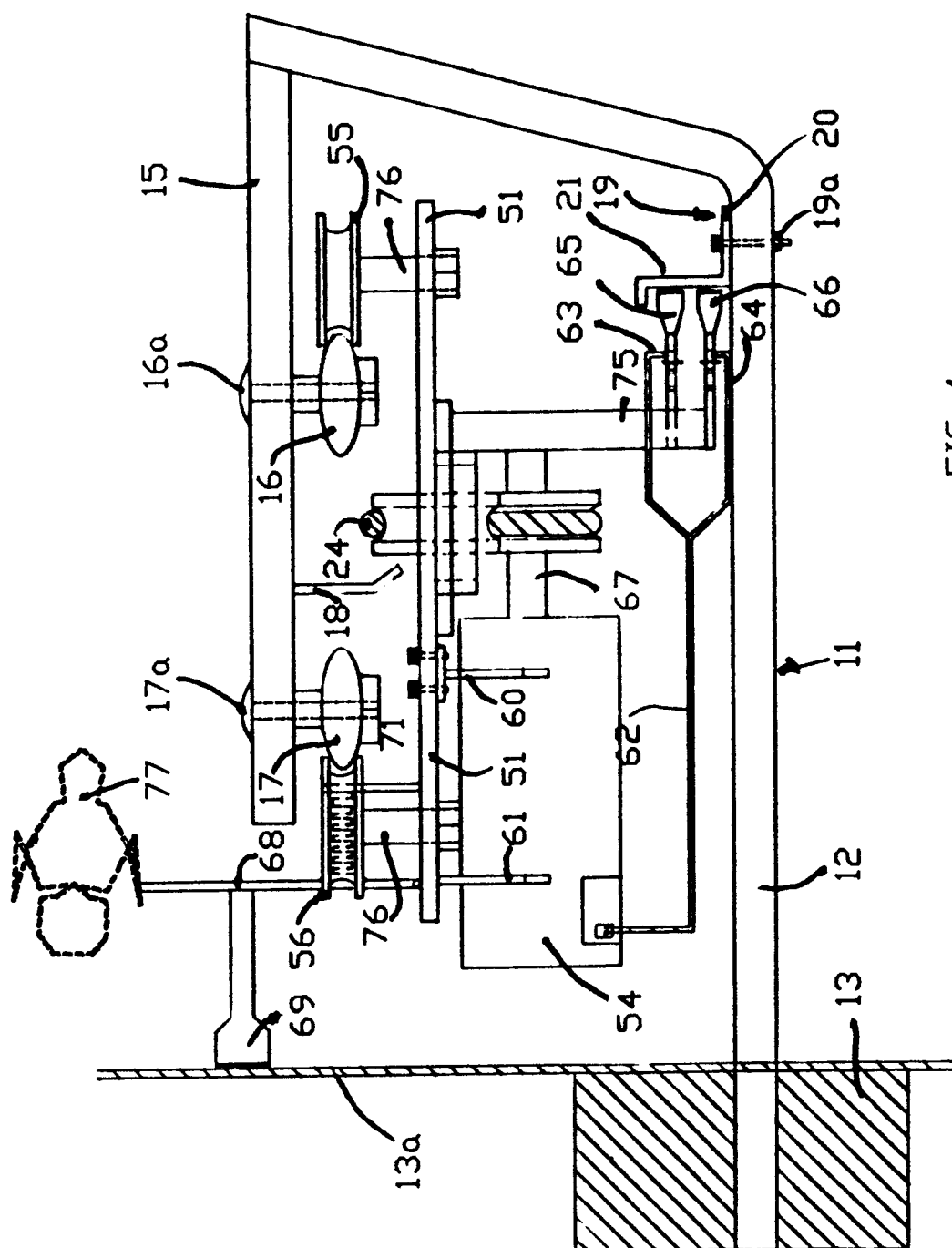
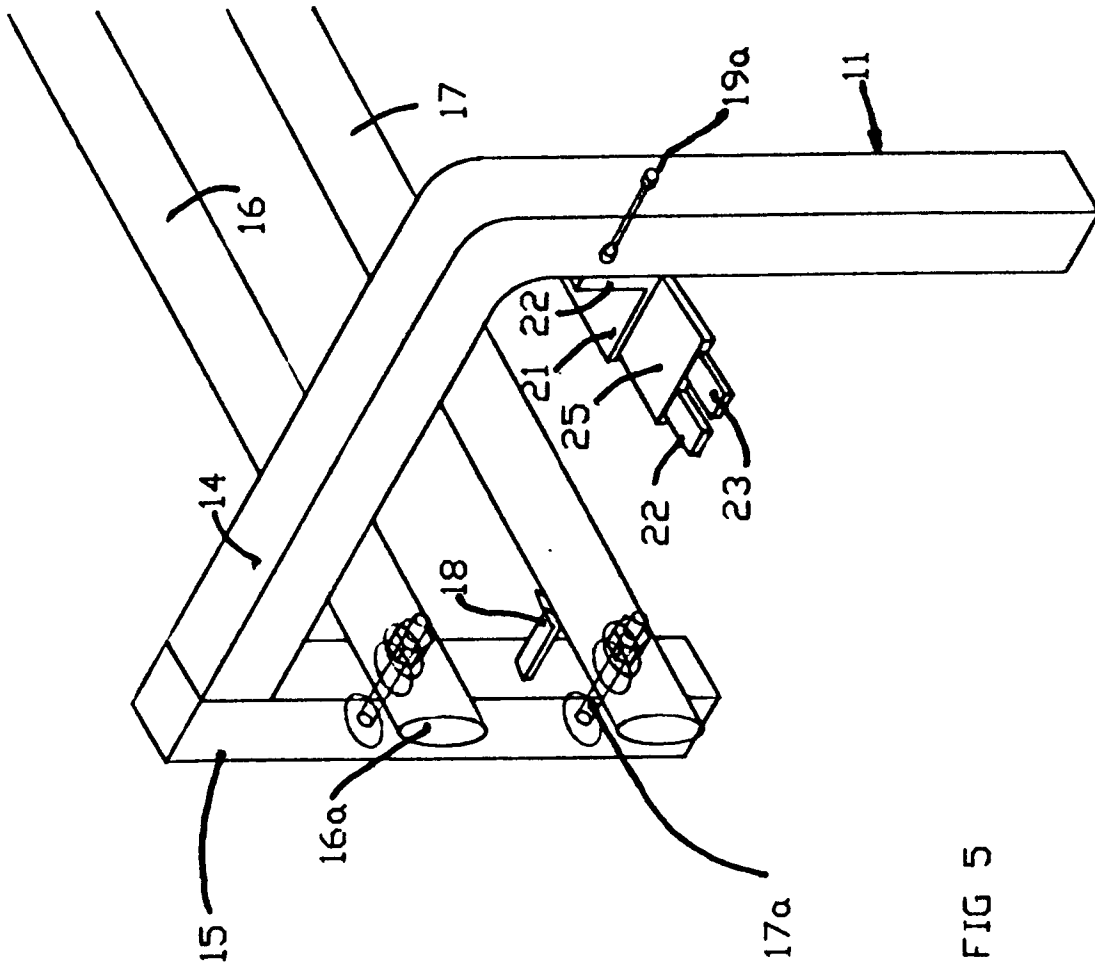
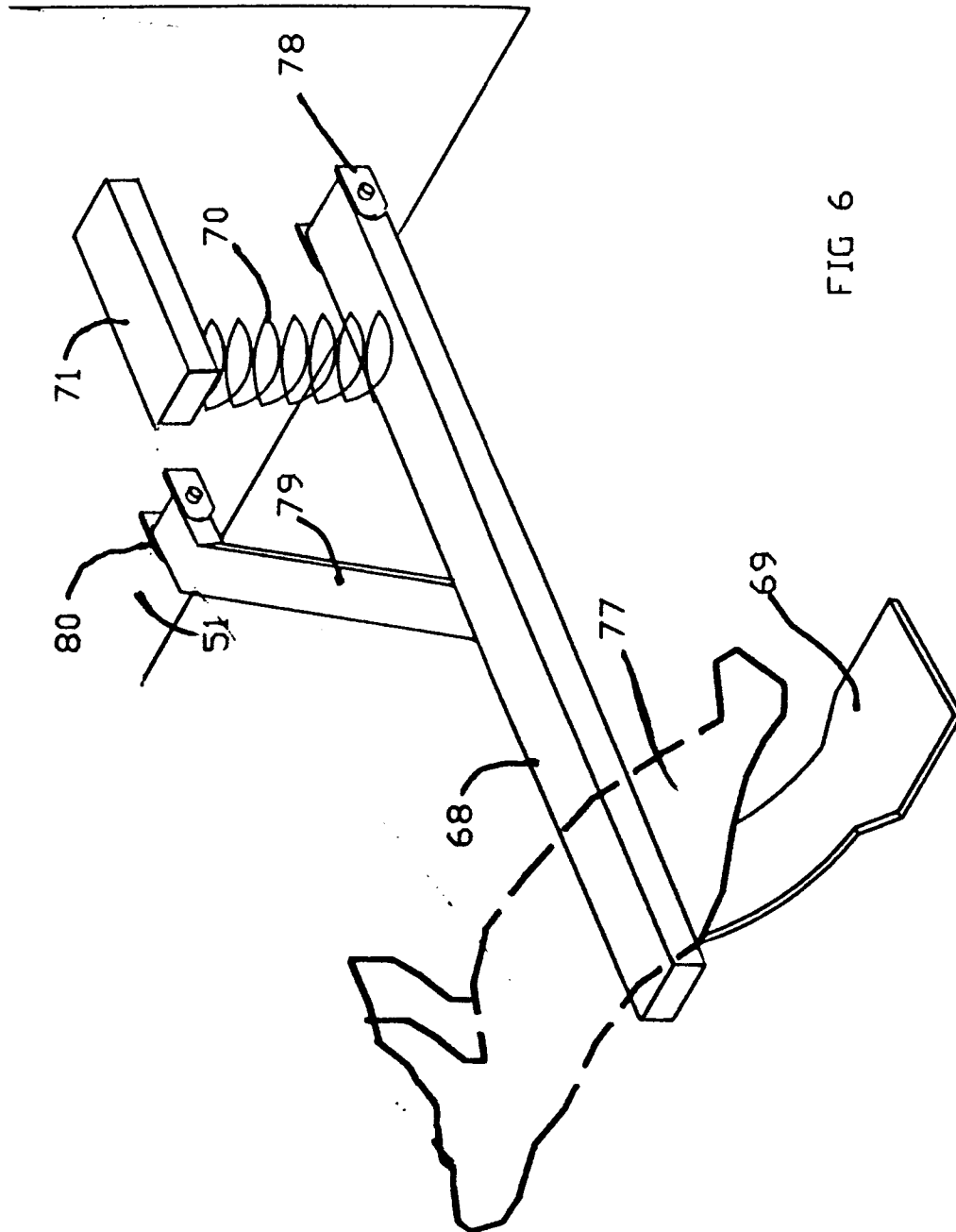


FIG 4







European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 94 65 0009

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
A	GB-A-355 423 (HILL ET AL.) * page 2, line 104 - line 111; figures * ---	1	A63K1/02 B66C11/18
A	US-A-1 923 085 (FLICK) * figures 4,9-11 * * page 3, line 138 - page 4, line 36 * ---	1	
A	WO-A-91 09762 (RAIMO) * abstract; figures * ---	1	
A	EP-A-0 161 437 (BACO A.G., SEILBAHNEN UND AUFZÜGE) ---		
A	EP-A-0 274 555 (HIRANO) ---		
A	US-A-4 646 924 (DAYSON) -----		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.5) B66C A63K
Place of search THE HAGUE		Date of completion of the search 8 December 1994	Examiner GUTHMULLER, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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