A New Running Mechanism

Field of the invention

This invention relates to a new running mechanism. In particular, it relates to a mechanism that can enable a normal person to run at a greater height and at a much higher speed with less effort and less impact to the ground.

Background

Running as a sport or for exercising is an important aspect of our life. However running can also be very demanding in terms of stamina and endurance. It can also be monotonous as compare to outdoors games. It is also an injury prone form of exercise due to the impact of the body weight onto the ground.

It is therefore desirable to provide a mechanism that could make running more fun, with greater sensation but less demanding physically as well as less injury prone.

Summary

One way to reduce the impact of the body weight onto the ground while running is to provide a body lifting mechanism which can continuously give an upward lift to a body in a forward motion. A wheel system can be incorporated to support the lifting mechanism and at same time, maintain the forward momentum.

A new running mechanism consists of an overhead frame strong enough to support the human body weight is connected to a two wheels system where one end of the overhead frame connects to the front wheel frame and the other end connects to the rear wheel frame. The wheels frames are in turn connected to a front wheel and a rear wheel respectively. The overhead frame can also be disconnected from the wheels frames for portability.

The joint to the front wheel frame is free to rotate about it for about 180 degree for steering while the joint to the rear wheel frame is fixed. The overhead frame combines

with both wheels frames and wheels to form a semi-circle and symmetrical structure. This will ensure a balance of force on the structure of the running mechanism, as well as to simplify construction.

A handle for steering the front wheel is connected at the front wheel frame. It is connected with a hinge allowing it to move up and down at a restricted angle. This will allow the person to hold on to the handle with better ease while the body moves up and down. The handle will also provide another means for holding on to the running mechanism when moving forward.

Brake levers are provided at the handle to control brake pads at both wheels for braking.

The overhead frame support the human body wearing a jerk suit connected to it with a system of multiple elastic ropes. The width of the overhead frame must be broader than a person’s shoulder for the system of multiple elastic ropes to connect to the person wearing the jerk suit for stability and for the ropes to be away from the person’s head.

The system of multiple elastic ropes can be adjusted with an upward lift to the body with a force that is within the body weight at its most stretch position when the body is on the ground. It can also be adjusted such that it will never be in a slack position when the body jumps up to its highest point.

The system of multiple elastic ropes is also connected to multiple positions on the overhead frame and then to different positions of the jerk suit. The ropes can be adjusted to different elasticity to unify the body to the overhead frame allowing the running mechanism to move forward when the body moves forward.

A commercial jerk suit or equivalent which is able to lift the body up into the air exerting a great force on the body should provide a good support when used in the running mechanism. The lifting mechanism should support more on the upper body to increase

the stability and to minimize restriction on the running movement of the person. As such, the jerk suit has to be adjusted to support more on the upper body.

Brief Descriptions of the Drawings

Embodiments of the invention are described hereinafter with reference to the following drawing in which:

Fig. 1 shows a 3-D view of the new running mechanism according to embodiments of the invention;

Fig. 2 shows the side view of Fig. 1;

Fig. 3 shows multiple positions of a normal person in a running motion;

Fig. 4 shows multiple positions of a normal person in a running motion with the aid of a running mechanism;

Fig. 5 shows the close-up of Fig. 1;

Fig. 6 shows a person strap on to a jerk suit attached to the overhead frame of Fig. 1;

Detailed Description

A new running mechanism is described hereinafter. Embodiments of the invention are described with reference to the figures of the drawing, wherein like elements are identified with like reference numerals.

Running as a sport or for exercising is an important aspect of our life. However running can also be very demanding in terms of stamina and endurance. It can also be monotonous as compare to outdoors games. It is also an injury prone form of exercise

due to the impact of the body weight onto the ground. Many people have to give up running due to the reasons as mentioned.

It is therefore desirable to provide a mechanism that could make running more fun, with greater sensation but less demanding physically as well as less injury prone.

As seen in Fig.3, in a normal way when a normal person runs, much energy is wasted in lifting the body up in every upward and forward step he made. To maintain the forward momentum, he has to stride upward and forward continuously in about every half a second per step. The impact of the body weight onto the ground is also detrimental to our body joints.

One way to reduce the impact of the body weight onto the ground is to provide a body lifting mechanism which can continuously give an upward lift to a body in a forward motion. A wheel system can be incorporated to support the lifting mechanism and at same time, maintain the forward momentum.

As seen in Fig.4, with such a running mechanism a person can move his body higher with an upward lift and at a much greater distance by riding on the speed of the mechanism with each upward and forward step.

A new running mechanism 100 according to an embodiment of the invention is shown in Fig.1. The new running mechanism consists of an overhead frame 101 strong enough to support the human body weight is connected to a wheel system. A two wheels system is described hereinafter where one end of the overhead frame 112 connects to the front wheel frame 102 and the other end 113 connects to the rear wheel frame 103. The wheels frames are in turn connected to a front wheel 104 and a rear wheel 105 respectively as seen in Fig.2. The overhead frame can also be disconnected from the wheels frames for portability.

The joint 106 to the front wheel frame is free to rotate about it for about 180 degree for steering while the joint 107 to the rear wheel frame is fixed. The overhead frame combines with both wheels frames and wheels to form a semi-circle and symmetrical structure. This will ensure a balance of force on the structure of the running mechanism, as well as to simplify construction.

A handle 108 for steering the front wheel is connected at the front wheel frame. It is connected with a hinge 109 allowing it to move up and down at a restricted angle. This will allow the person to hold on to the handle with better ease while the body moves up and down. The handle will also provide another means for the person to hold on to the running mechanism when moving forward.

Brake levers are provided at the handle to control brake pads at both wheels for braking.

As seen from Fig.6, the overhead frame supports the human body wearing a jerk suit 110. The jerk suit is connected to the overhead frame with a system of multiple elastic ropes 111. The width of the overhead frame must be broader than a person's shoulder for the system of multiple elastic ropes to connect to the person wearing the jerk suit for stability and for the ropes to be away from the person's head.

The system of multiple elastic ropes can be adjusted with an upward lift to the body with a force that is within the body weight at its most stretch position when the body is on the ground. It can also be adjusted such that it will never be in a slack position when the body jumps up to its highest point to maintain the stability of the mechanism's stability.

The system of multiple elastic ropes is also connected to multiple positions on the overhead frame and then to different positions of the jerk suit. The elastic ropes can be adjusted to different elasticity to unify the body to the overhead frame allowing the running mechanism to move forward when the body moves forward.

As seen in Fig.6, one way of connecting is such that one end of the multiple elastic ropes on the left are connected to one point on the left side of the jerk suit while the other end of the multiple elastic ropes is connected at different positions on the overhead frame on the left respectively. Equivalently, one end of the multiple elastic ropes on the right are connected to one point on the right side of the jerk suit while the other end of the multiple elastic ropes is connected at different positions on the overhead frame on the right respectively.

A commercial jerk suit or equivalent which is able to lift the body up into the air exerting a great force on the body should provide a good support when used in the running mechanism. The lifting mechanism should support more on the upper body to increase stability and to minimize restriction on the running movement of the person. As such, the jerk suit has to be adjusted to support more on the upper body.

As the jerk suit supports more on the upper body, it constantly stretches the body while running.

The running mechanism is further described with examples in different motions and positions.

When a person starts to run, starting from say the right foot, pushing upwards and forward, the system of multiple elastic ropes will help to lift the person upwards as well as pushing the running mechanism forward.

As the body of the person will be lifted up higher than normal, the landing time will also be increased allowing the running mechanism to move forward with the person’s feet in the air. When the left foot lands on the ground, again it can push upward and forward which further pushes the running mechanism.

In other words, the person is riding on the running mechanism, moving up and down, pushing it forward with continuous running steps.

Due to the fact that most of the body weight is supported, the impact of the bodyweight to the ground is drastically reduced and the person can concentrate better in pushing forward.

The running mechanism effectively allows a person to run at greater height and at a much higher speed with lesser effort and body weight impact to the ground. It brings out great sensation and fun in running.

Claims

1. A new running mechanism with a body lifting mechanism which can continuously give an upward lift to a body in a forward motion. A wheel system is incorporated to support the lifting mechanism and at same time, maintain the forward momentum

2. The new running mechanism as in claim 1, comprising:
an overhead frame
an incorporated wheel system
a steering mechanism
a braking mechanism
a system of multiple elastic ropes connecting a jerk suit to the overhead frame

3. The new running mechanism as in claim 2, wherein the overhead frame is incorporated to a wheel system with at least two wheels

4. The new running mechanism as in claim 3, wherein the overhead frame joint to both wheels frames forming a semi-circle to form a stronger structure as well as to balance the force on the structure of the running mechanism

5. The new running mechanism as in claim 3, wherein the overhead frame joint to the wheels symmetrically for stronger structure as well as for easy construction

6. The new running mechanism as in claim 3 wherein the overhead frame join to the front wheel frame and is free to rotate about it for about 180 degree for steering while the joint to the rear wheel frame is fixed

7. The new running mechanism as in claim 3, wherein the overhead frame can also be disconnected from the wheels frames for portability

8. The new running mechanism as in claim 2, wherein a handle is connected to the front wheel frame for steering

9. The new running mechanism as in claim 8, wherein the handle is connected to the front wheel frame with a hinge allowing it to move up and down at a restricted angle allowing the person to hold on to the handle at better ease while the body move up and down

10. The new running mechanism as in claim 2, wherein brake levers are provided at the handle to control brake pads at both wheels for braking

11. The new running mechanism as in claim 2, wherein a jerk suit or equivalent is connected to the overhead frame with a system of multiple elastic ropes

12. The new running mechanism as in claim 2, wherein the width of the overhead frame must be broader than the human shoulder for the system of multiple elastic ropes to connect to the jerk suit for stability and away from the person’s head

13. The new running mechanism as in claim 11, wherein the system of multiple elastic ropes can be adjusted with an upward lift to the human body with a force that is within the body weight at its most stretch position when the body is on the ground

14. The new running mechanism as in claim 11, wherein the system of multiple elastic ropes can be adjusted such that it will never be in a slack position when the body jumps up to its highest point to maintain the stability of the mechanism

15. The new running mechanism as in claim 11, wherein the system of multiple elastic ropes are also connected to multiple positions on the overhead frame and then to different position of the jerk suit and can be adjusted with different

elasticity to unify the body to the overhead frame allowing the running mechanism to move forward when the body move forward

16. The new running mechanism as in claim 1, wherein the lifting mechanism support mostly on the upper body to increase the stability and minimize restriction on the running movement of the person

17. The new running mechanism as in claim 1, wherein the lifting mechanism support mostly on the upper body constantly stretches the body while running

18. The new running mechanism as in claim 16, wherein the jerk suit is adjusted to support more on the upper body