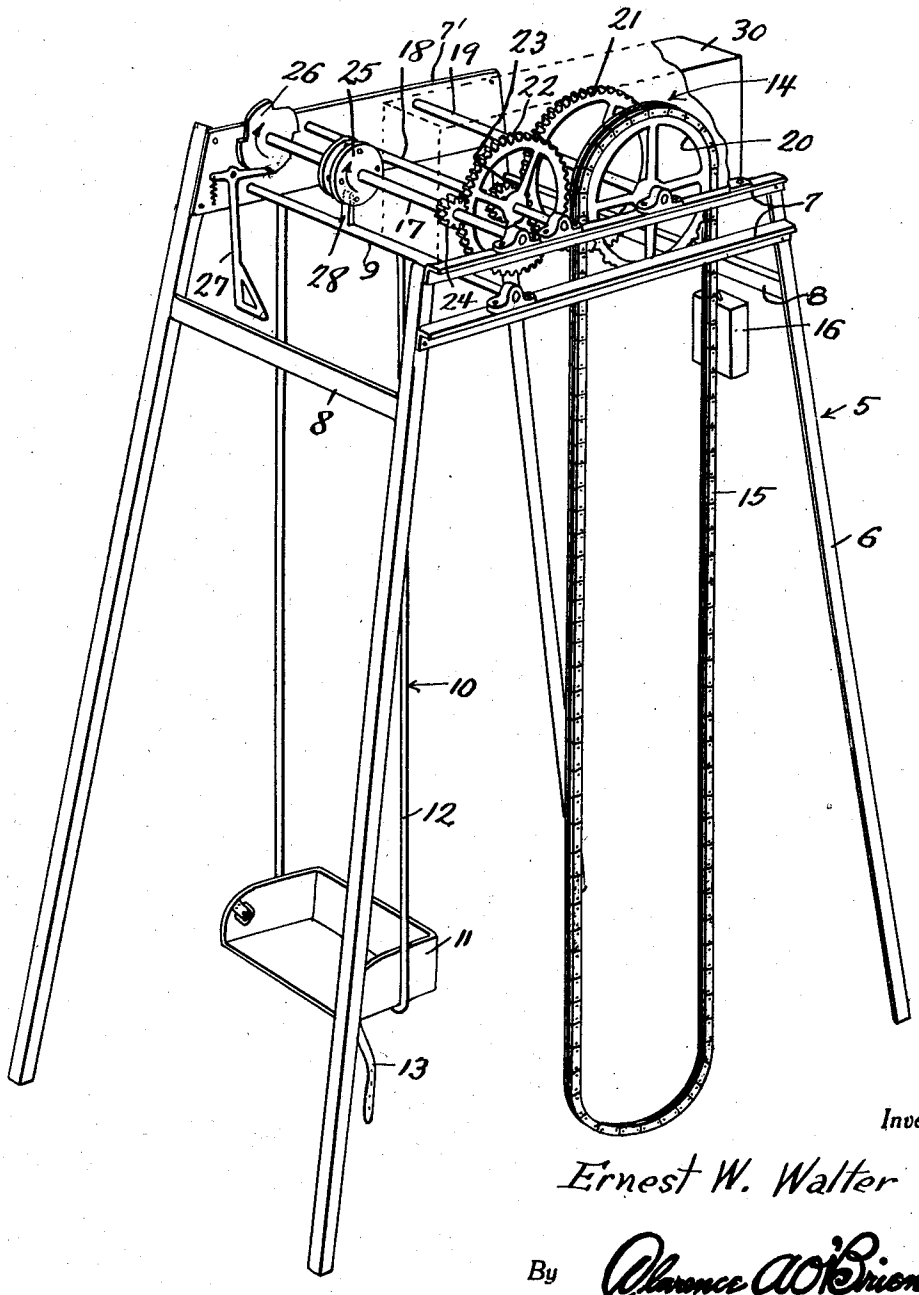
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SWING

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SWING

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1 Claim. (Cl. 155—59)

This invention relates to swings either for children or adults, and has for the primary object the provision of a device of this character which may be readily set up for use at any selected place and which includes a weight motor for driving the swing and thereby eliminate manual effort for the swinging of the swing and which consists of a minimum number of parts and of a durable construction and may be manufactured and sold at a low cost.

With these and other objects in view, the invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which the figure is a perspective view illustrating a swing constructed in accordance with my invention.

Referring in detail to the drawing, the numeral 5 indicates a supporting structure including pairs of legs 6, a pair of legs at one side of the structure being connected by cross members 7 and the other pair of legs are connected together by a cross plate or member 7' and the legs are further connected in front and rear pairs by braces 8 providing a very rigid construction capable of standing in an upright position.

The cross members 7 and 7' rotatably support a shaft 9 forming a part of a swing 10 which includes a seat 11 rigidly connected to the shaft 9 by members 12. The seat 11 may be provided with a safety strap 13 for strapping a child in the seat.

A weight motor 14 is mounted on the supporting structure and is of the type employing an endless sprocket chain 15 to which a weight 16 is connected and when elevated is adapted to gradually descend for the purpose of operating the swing 10. The weight motor 14 further includes shafts 17, 18 and 19 rotatably supported by the cross members 7 and 7' and a train of gears including sprocket gears 20 and 21 secured on the shaft 19 and sprocket gears 22 and 23 on shaft 18, the sprocket gear 23 being in mesh with the sprocket gear 21 while the sprocket gear 22 meshes with a sprocket gear 24 secured on the shaft 17. The sprocket gear 20 has the endless chain 15 carrying the weight 16 trained thereover.

Arranged between the shaft 9 of the swing 10 and the shaft 17 is an escapement consisting of a gear 25 including spaced pins or teeth and a ratchet type gear 26. The gears 25 and 26 are secured on the shaft 17 and a spring influenced trigger 27 is pivotally mounted on the supporting structure to coact with the gear 26 while a toothed member 28 is formed on the shaft 9 to coact with the gear 25 or the pins thereof. The trigger 27 includes a spring actuated dog pivoted to the plate 7' and having an arm depending therefrom which is formed with an enlargement, which enlargement lies in the path of movement of one of the members 12 of the swing.

To set the device in operation, the weight 16 is raised to an elevated position, as shown in the drawing, and the parts are held in this position by the engagement of the dog or trigger with the gear 26, the motor tending to rotate the shaft 17 with the parts 25 and 26 in the direction of the arrows on said parts. By releasing the trigger 27 from the gear 26 either by hand or upon forward movement of the swing the parts will start to rotate under the action of the weight 16 and thus a pin of the gear 25 will engage the projection 28 on shaft 9 to rock the shaft to cause rearward movement of the swing. Then the shaft 17 is again locked against rotary movement by engagement of the trigger with the gear 26 but as the swing moves forwardly under the action of gravity a rod 12 will engage the trigger and again release the gear 26 so that the shaft 17 is again rocked so that a pin of the gear 25 will again engage the projection 28 of shaft 9 to swing the swing rearwardly. This operation of the swing will continue until the weight 16 reaches its lowermost position when it may be manually returned to its uppermost position by a pull on one of the runs of the sprocket chain 15.

While I have shown and described the swing 10 as including a seat 11, the structure may be increased in size so as to accommodate a crib if desired.

A casing 30 is secured on the supporting structure to substantially encase the gears to prevent a child from being caught in said gears and injured.

It is believed that the simplicity and advantages of this invention will be apparent to those skilled in the art to which such a device relates, and while I have herein set forth a satisfactory embodiment of the invention, it is to be understood that such changes therefrom as fairly fall within the scope of my claim may be resorted to when desired.

Having thus described the invention, I claim:

A swing comprising an upright structure, a horizontal shaft journaled in the top of the

structure, a sprocket wheel on the shaft, an endless chain passing over the wheel and extending to a point adjacent a surface on which the structure rests, a weight connected with the chain for imparting movement to the shaft and wheel when the weight moves downwardly, the weight being raised by pulling upon the chain, a second shaft horizontally arranged and journaled in the top of the structure, gearing connecting the two shafts together, a wheel fastened to the second shaft and having pins projecting from one face thereof, a ratchet wheel carried by the second shaft, a third shaft journaled in the top of the structure and located under the second shaft, a projection formed on the third shaft and engaged by the pins of the wheel on the second shaft whereby the third shaft is rocked from the second shaft, a spring actuated dog pivoted to a part of the top of the structure for engaging the ratchet wheel, an arm depending from the dog and having an enlargement at its lower end, a pair of rods connected at their upper ends to the third shaft and extending downwardly, one rod engaging the enlargement of the depending arm during rocking movement of the third shaft for releasing the dog from the ratchet wheel and a seat supported by the lower ends of the rods.

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