

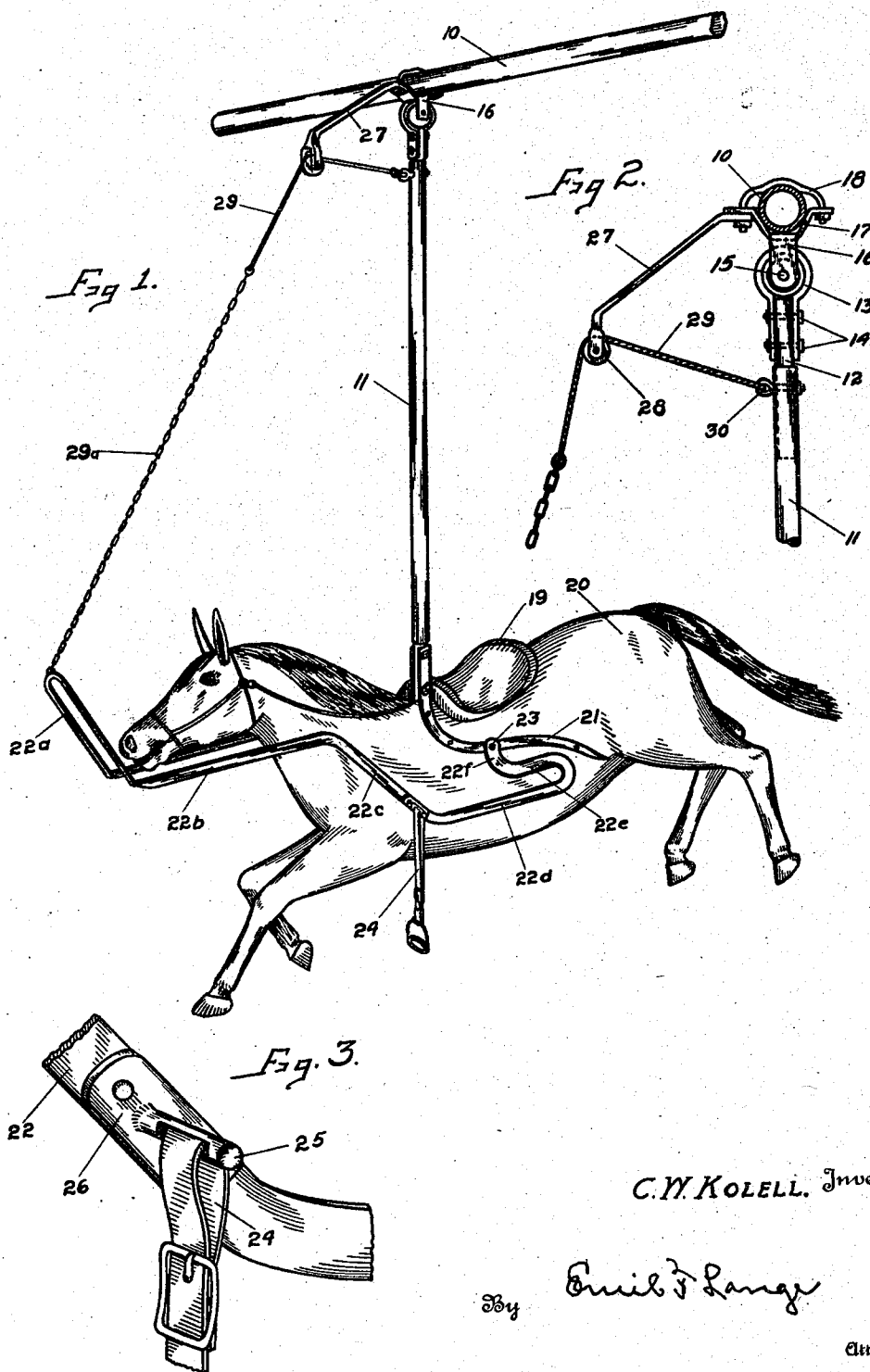
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SWING

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SWING.

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My invention relates to swings and it is one of my objects to provide a swing in which the idea of safety is paramount. Another object which I have in view is the provision of a swing which which may be easily actuated since the difficulty of actuating swings of the present type has been the greatest obstacle in popularizing this type of swing. It is the third object of my invention to make the swing very attractive to children of all ages. Having in view these objects and others which will be mentioned in the following description, I will now refer to the drawings, in which—

Figure 1 is a view in perspective of the swing and its support.

Figure 2 is a view in elevation of the upper portion of the swing showing particularly the support in section and the bearings.

Figure 3 is a perspective view of the stirrup support.

The swing support 10 may be a metal pipe, a wooden bar, a ceiling, or in fact anything which is capable of supporting the swing from an overhead point at a sufficient height. The suspension element 11 of the swing must be rigid but it may be formed from a piece of gas pipe as shown or from any other suitable material. Inserted in its upper end is a rod 12 having a looped strap 13 bolted thereto by means of bolts 14 passing through the strap and through the rod. The looped portion of the strap 13 serves as a bearing for the swing and this bearing should be made as nearly frictionless as possible by means of balls or rollers or the like. The bearing pin is shown at 15, and secured to each end of the pin is a U-shaped clip 16. The clip passes through a bracket 17, and if it is desired to suspend the swing from a tubular support as shown in the drawings, a bent bolt 18 passing over the top of the support 10 is secured to the bracket 17. The U-bolt 18 should be bent to conform to the upper surface of the support. When it is desired to secure the swing to a ceiling the bracket 17 is bolted directly to the ceiling.

The seat of the swing is shown at 19 and in this instance the numeral indicates the saddle of the wooden horse 20. The suspension element 11 terminates immediately in front of the saddle 19 and for securing it to the body 20 there is a pair of curved

straps 21 which are firmly secured to both the suspension element 11 and the body 20. The swing is also provided with means for actuating it. The yoke 22 has an upwardly and forwardly extending portion 22^a for receiving the horse's head during the motions of the swing, a pair of forwardly and rearwardly extending parts 22^b, a pair of rearwardly and downwardly extending parts 22^c, two parallel pairs 22^d and 22^e, the parts 22^e terminating in short vertical extensions 22^f. The parts 22^f are firmly connected by means of pivot pins to the iron straps 21, the pivot 23 being directly under the saddle 19. The stirrup straps 24 pass through slots in the pins 25 which are integral with the plates 26, the plates being bolted or otherwise secured to the parts 22^c at or near their junctions with the parts 22^d. The pivot pin 23 is preferably passed through both straps 21 and through the body of the horse. The pins 25 could be secured directly to the parts 22^c but such connections are very likely to be broken and they are very difficult to repair. By making the pins integral with the plates 26 and securing the plates to the parts 22^c, both of these difficulties are remedied. The stirrup straps are made adjustable for the convenience of the rider.

The arm 27 extends forwardly and downwardly from the bracket 17, being secured to the bracket by means of the bolt which secures the bracket to the support 10. The arm 27 is provided at its forward end with a pulley 28. The rope or cable 29 is secured through the eye of an eye bolt 30, this bolt serving also to secure the parts 11 and 12 of the support together. The rope or cable 29 may be extended to the yoke 22^a but I prefer to limit it to such length as is necessary for the maximum movement of the swing and to connect it by means of a chain 29^a or a rod to the yoke.

In use, the rider seats himself in the saddle 19 with his feet in the stirrups 24. By pressing downwardly with a slight forward pressure, he causes the member 22 to move on its pivots 23, the result being that a slight movement of the stirrups will cause a considerable movement of the forward end portion of the member 22. This motion is of course transmitted through the connections 29^a and 29 to the support 11, causing the swing to move on its pivot 15. It is

only the forward impulse that is given to the swing, the rearward movement being a simple pendulum movement, but each forward impulse will carry the swing higher than the preceding one. The pivots 23 are directly underneath the rider, and because of this construction together with the great leverage, the swing may be actuated with the minimum of effort. This advantage is still further increased by the use of ball or roller bearings in the suspension of the swing.

Swings of all kinds may be provided with either a safe or a dangerous construction, and in my swing the safety features are of primary importance. Swings are particularly attractive to boisterous children who are ready to take all kinds of dangerous risks, and it is therefore absolutely essential that the swing be so constructed that it will offer no temptation to such children. The part 22 is placed so closely to the body 20 that it is impossible for a child to get his foot caught between them. This close relation cannot be maintained at the forward end because of the relative movement between the parts, but safely is provided by so elevating the portion 22^b that the child cannot readily reach it with his feet. One of the most serious dangers, however comes from the fact that any flexible element 29 will become worn in time. The breakage of the rope 29 allows the forward end of the part 22 to fall to the ground where it is apt to suddenly stop the movement of the swing and to throw the occupant. This difficulty is avoided in my swing by the employment of certain features of construction of the rear portion of the element 22 in combination with the seat 19. The saddle has laterally extending projections which lie in the projected planes of movement of the two parts of the element 22. The parts 22^c are therefore extended rearwardly of the pivots 23 a sufficient distance so that the rear end of the element 22 will engage the projecting parts of the saddle to limit the downward movement of the front end of the element 22. Breakage of the rope 29 will then merely stop the actuation of the swing,

which will then come to rest gradually and without danger to the rider.

Having thus described my invention in terms which will be readily understood by others skilled in the art to which it pertains, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. A swing including a seat member and a rigid support extending upwardly therefrom, said support being adapted to be pivotally secured at its upper extremity at a fixed overhead point, a yoke pivotally secured to said seat member and extending forwardly and rearwardly from its pivotal connection, a pulley fixed in position forwardly of said support, a flexible connection between the forward extremity of said yoke and the upper portion of said support, said flexible connection passing over said pulley, and an abutment on said seat member for engaging the rearward portion of said yoke to limit the downward movement of the forward extremity thereof.

2. A swing including a body member and a rigid support therefor for suspending said body member from a fixed overhead supporting structure, a horizontal pivot in said rigid support adjacent its upper extremity, a saddle on said body member immediately to the rear of said rigid support, said saddle having laterally extending portions projecting therefrom, a yoke pivotally secured to said body member directly underneath said saddle and extending forwardly from its pivotal connection, a pulley fixed in position forwardly of said rigid support, a flexible connection between the upper portion of said rigid support and the forward extremity of said yoke and passing over said pulley, and stirrups depending from said yoke at points forward of said rigid support, said yoke having portions projecting rearwardly from the pivotal point of said yoke, said rearwardly projecting portions of the yoke being adapted to engage the laterally projecting portions of the saddle to limit the downward movement of the forward extremity of said yoke.

In testimony whereof I affix my signature
CARL W. KOLELL.