

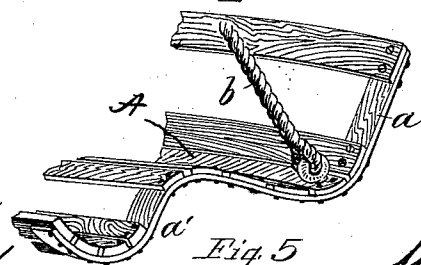
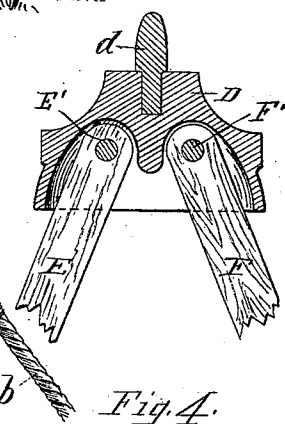
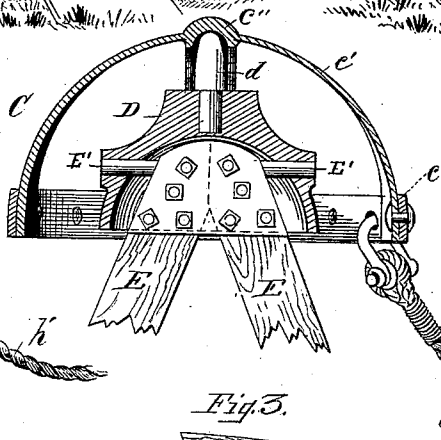
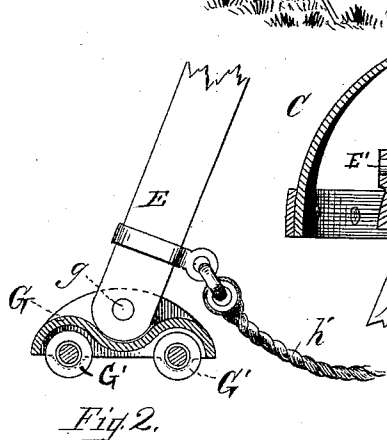
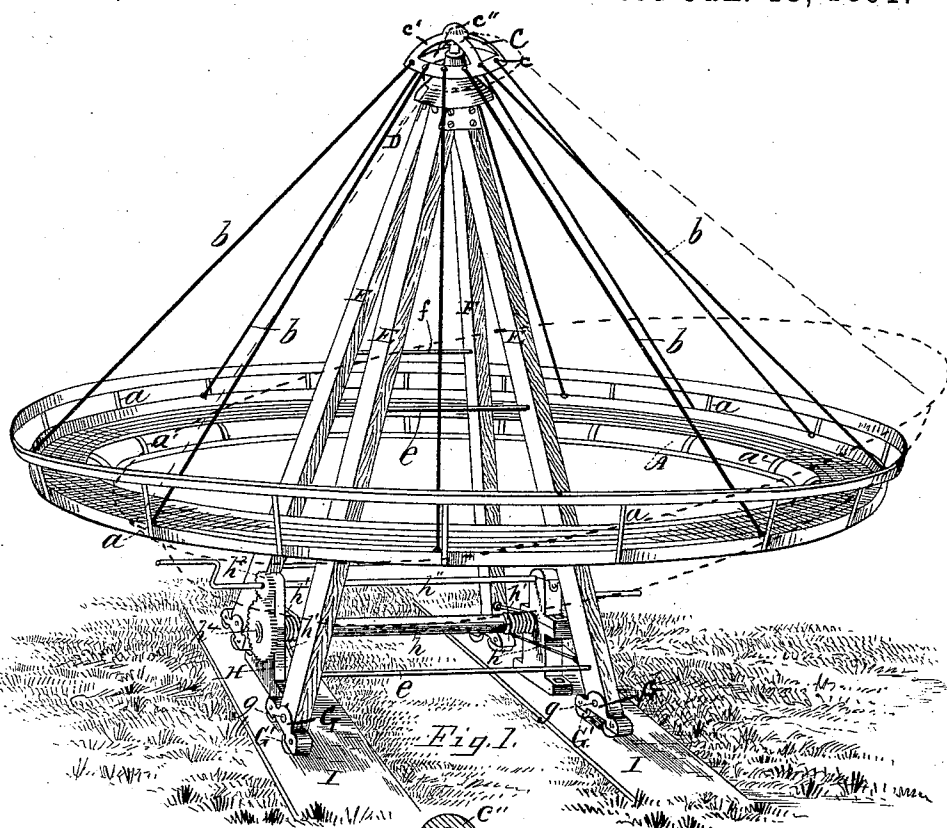
(No Model.)

A. W. ULLVEN.

ROUNDAABOUT.

No. 444,585.

Patented Jan. 13, 1891.



Witnesses:  
Martha J. Jackson  
Francis R. Chapman

Inventor:  
Alfred W. Ullven  
by Alvan Andrew Smith

# UNITED STATES PATENT OFFICE.

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SALEM, MASSACHUSETTS.

## ROUNABOUT.

SPECIFICATION forming part of Letters Patent No. 444,585, dated January 13, 1891.

Application filed December 11, 1889. Serial No. 333,344. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED W. ULLVEN, a citizen of Sweden, and a resident of Beverly, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Roundabouts, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in "roundabouts" or "merry-go-rounds," and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a perspective view of the invention. Fig. 2 represents a detail view of one of the shoes to which the lower ends of the supporting-frames are pivoted. Fig. 3 represents a detail sectional view of the standard-cap and the crown to which the circular ring or seat is connected by means of guys, ropes, or links. Fig. 4 represents a detail sectional view of said standard-cap, said section being at a right angle to the one shown in Fig. 3; and Fig. 5 represents a perspective view of a portion of the circular seat and the lower end of one of the supporting ropes or links.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

The invention consists of a circular ring or seat A, preferably provided with a back *a* and leg and foot rest *a'*, as shown in Figs. 1 and 5, which ring or seat may be of any suitable diameter to allow about fifty or more or less persons to be comfortably seated thereon. The said circular seat is connected by means of a number of ropes, links, or chains *b b b* to a metal crown C, preferably composed of an annular ring *c* and two or more arches *c' c'*, riveted together or forged or cast in one single piece, as may be most practical. The said crown has on the under side of its central highest point a recess or cup-shaped depression *c''*, adapted to receive the upper end of the center pivot-pin or bearing-spindle *d*, preferably made of steel and secured in a suitable manner to the standard-cap D, as shown in Figs. 3 and 4.

The center pivot-pin or bearing *d* and the cup-shaped depression or bearing *c''* consti-

tute what I will term a "ball-and-socket joint," for it enables the crown-piece C to revolve and oscillate laterally and the seat A to revolve and also to oscillate or rock laterally in unison with the crown-piece.

The cap D is hinged at *E' F'* to the upper ends of a pair of frames *E E* and *F F*, the beams in the frame *E E* being united by means of stays or braces *e e*, as shown in Fig. 1, to prevent the said beams from spreading apart. In a like manner the beams *F F* are united by means of stays or braces *f f*.

To the lower end of each of the beams *E E* *F F* is pivoted at *g* a shoe G, supported on anti-friction wheels or rollers *G' G'*, as shown in Figs. 1 and 2, to permit an easy adjustment of the lower ends of the frames *E* and *F* to and from each other for the purpose of raising or lowering the circular seat A, which is done by means of a windlass H, of any well-known construction, to the barrel *h* of which are secured ropes *h' h'*, the outer ends of which are secured in a suitable manner to the lower ends of the frames *E E* and *F F*, as shown in Figs. 1 and 2.

*h''* is a crank-shaft, as usual, provided with a pinion *h<sup>3</sup>*, the teeth of which mesh in the teeth of the gear-wheel *h<sup>4</sup>*, secured to one end of the barrel *h*, as is common in windlasses or hoisting devices.

Any other or equivalent device for tightening or slackening the ropes *h' h'* may be used without departing from the essence of my invention.

I I represent planks or a floor, on which the standards *E E F F* are supported and made adjustable to and from each other; but this is not essential, as said standards may be made to rest on the ground if the latter is smooth and hard.

The operation of the improved roundabout or merry-go-round is as follows: The circular seat A is lowered and made to rest on the ground to enable the passengers to take their seats on the said ring A. This lowering of the seat is accomplished by letting go the windlass and allowing the frames *E* and *F* to spread apart until the under side of the ring A touches the ground. After the passengers have been seated and properly distributed on

the ring A, so as to keep it balanced, or nearly so, said ring and its load is raised from the ground about six feet, more or less, as may be desired, which is done by turning the barrel of the windlass and winding on it a portion of the ropes *h' h'*, thus causing the frames E F to be moved toward each other at their lower ends and the height of the standards correspondingly increased. After the ring A has been raised to the desired height from the ground the windlass is locked by any of the usual means. The circular seat A is then swung around its axis on the upper end of the center pivot-pin or bearing *d*, and while rotating or revolving said seat can be oscillated or rocked laterally (see dotted lines, Fig. 1) by the attendant simply pushing or pulling the seat to swing the same. The motion thus imparted to it is a combined rotary and tilting or oscillating one, and is not unlike the motion of a vessel in a rolling sea. When the passengers are to be discharged, the seat A is lowered to the ground, as above stated, and soon. I prefer to make the standard or point of suspension vertically adjustable, as above stated, as the loading and unloading of the passengers is thereby facilitated; but, if so desired, the standard may be made stationary in the form of a post or stationary structure, from the top of which the circular seat is suspended in a manner as above described.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent, and claim—

1. A roundabout consisting of a cap having a center bearing, a pair of frames pivoted at

their upper ends to said cap and having rolling supports at their lower ends, means for moving the lower ends of the frames to and from each other, a revolving and oscillating crown-piece solely supported by the center bearing, an annular carriage, and flexible supports suspending the carriage from the crown-piece, substantially as described.

2. A roundabout consisting of a central supporting-frame having at its upper end a cap provided with a pivot or bearing, a revolving and laterally-oscillating crown-piece solely supported by the pivot or bearing and comprising arches united by a ring or band, an annular seat, and suspension-cables hung from the ring or band and supporting the seat, substantially as described.

3. A roundabout consisting of a pair of frames having supporting-rollers below their lower ends to travel on a horizontal flooring, a cap to which the upper ends of the two frames are pivoted, a revolving crown-piece pivoted to the cap, a passenger seat or carriage suspended from the crown-piece and revolving therewith, and mechanism for moving the lower ends of the frames to and from each other to raise and lower the passenger seat or carriage, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 21st day of November, A. D. 1889.

ALFRED W. ULLVEN.

Witnesses:

ALBAN ANDRÉN,  
MARTHA J. JACKSON.