(No Model.)

J. H. BENNING.

SWINGING COT.

No. 600,116. Patented Mar. 1, 1898.

Fig. 1

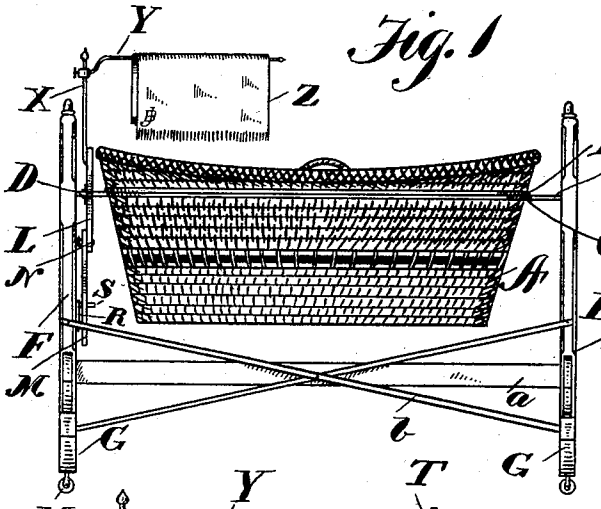


Fig. 2

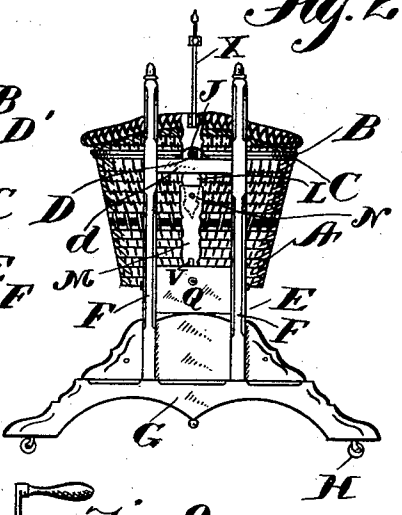


Fig. 8

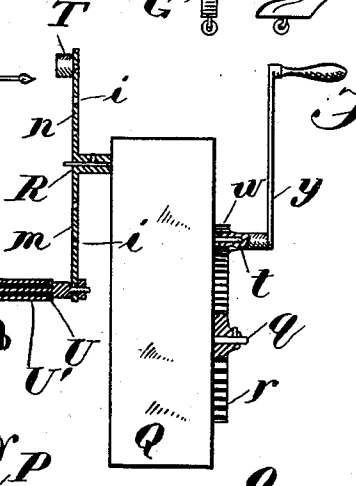


Fig. 3

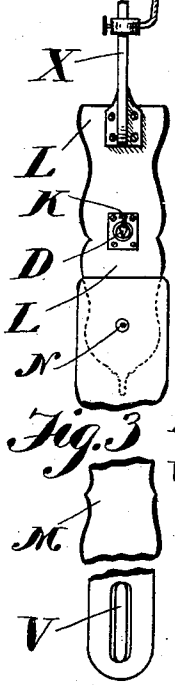


Fig. 4

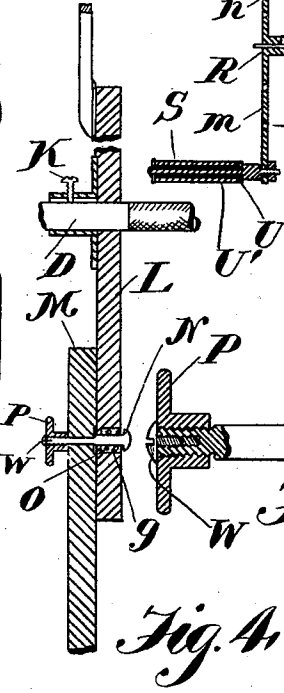


Fig. 5



Fig. 7

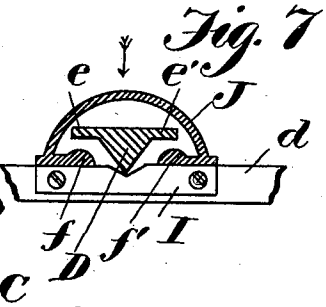
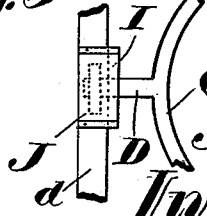


Fig. 6



Witnesses.

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UNITED STATES PATENT OFFICE.

JOSEPH H. BENNING, OF SAN FRANCISCO, CALIFORNIA.

SWINGING COT.

SPECIFICATION forming part of Letters Patent No. 600,116, dated March 1, 1898.

Application filed August 25, 1896. Serial No. 603,892. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. BENNING, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented certain new and useful Improvements in Swinging Cots; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in swinging cots, and more particularly to that class of infants' cots or cradles to which suitable mechanism is attached for the mechanical rocking of the same.

The prime objects of my present invention are to provide a simple, compact, light, durable, and comparatively inexpensive cot in which mechanical means is provided for its rocking and at the same time increase the efficiency of the device by relieving the operative mechanism of any sudden shocks or changes of position of the cot proper caused by the restlessness of the occupant or the oscillations of the cot. I have also provided simple and efficient means for regulating the speed of the operating mechanism.

In practically carrying out the above prime results I have additionally aimed at decreasing to a minimum the noise of the working parts, as well as in the matter of structural simplicity and economy.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof particularly set forth in the appended claims.

The invention is clearly illustrated in the accompanying drawings, in which similar letters of reference designate corresponding parts throughout the several views, and in which—

Figure 1 is a side elevation of my invention. Fig. 2 is an end view of the same. Figs. 3, 4, 5, 6, 7, and 8 are enlarged views of details.

Referring now to the above figures by letter, A represents a basket-cot made of open wicker-work or any other light, strong, and inexpensive material capable of being readily cleansed and kept pure and odorless.

The upper edge of the cot A has a sway-back appearance, while at a short distance below this edge is formed integral with the cot and extends entirely around it a projecting flange B.

Formed to longitudinally encircle the cot A and directly beneath the flange B is the metal hoop C, which is constructed with oppositely-disposed trunnions D D'.

As a suitable support for the members above described I have provided the wooden framework E, which consists of four upright posts F, two at each extremity of the cot, and suitable longitudinal and diagonal braces *a b*, connecting opposite pairs. The cross-braces *d* are provided to connect the upper extremities of the members of each pair of uprights F, while their lower extremities terminate in a gracefully-curved support G, borne on roller-casters H.

The extremities of the trunnions D D' are triangular in cross-section, as shown in Fig. 7, and in conjunction with the metal plate I, which is secured to the cross-braces *d*, form a knife-edge bearing, on which the cot oscillates. To prevent dust from accumulating about this bearing, I have provided the guard J. The projecting arms *e e'*, in conjunction with the bumpers *f f'*, limit the degree of oscillation of the cot and obviate any liability to accidental overturning. Fig. 6 is a view taken in the direction of the arrow in Fig. 7.

Secured to the trunnion D by means of the binding-screw K is the vertical plate L, whose edges are gracefully curved to present a neat appearance. Overlapping the lower extremity of this plate L is a secondary plate M, which is connected or pivoted to plate L by means of the bolt N. The plates L and M are shown in elevation in Fig. 3 and in longitudinal section in Fig. 4, while the bolt N is represented in Fig. 5. The portion of the bolt N which perforates the plate L is circular in cross-section and is encircled by the compression-spring O, the latter entering an enlarged recess *g* in the plate L. The remaining half of the bolt N is formed with a square cross-section and is adapted to protrude through a square perforation in the plate M. By means of the thumb-screw P it will be readily seen that the plates L and M can be bound together with any degree of pressure.

Situated directly below the trunnion D and between the posts F is the motor Q, to which

is connected the crank R. This crank R is formed with opposite legs *m* and *n*, the former being for the reception of the projecting finger S, while the latter receives the balancing-weight T. About the finger S is adapted to revolve an inner thimble U, made of wood fiber, and an outer thimble U', constructed of rubber, which together deaden the sound.

The lower extremity of the plate M being formed with a vertical slot V for the reception of the finger S, it is manifest that as the crank R revolves the finger S will play in the slot V, causing the plates L and M to oscillate, carrying with them the basket-cot A. It is further manifest that at the moment the crank R changes its direction of operation on the plates L and M the inertia of the combined cot A and plates L and M will have a tendency to carry them farther in the assumed direction until they reach the limit of oscillation in either direction, and this latter effect would dangerously interfere with the free revolution of the crank R were it not for the presence of bolt N, which allows the plate L to proceed a short distance while the lower plate M is starting on its return oscillation. In other words, the peculiar manner shown of connecting the plates L and M affords an efficient brake, which gradually induces the cot to change its direction of oscillation as it is about to reach its limit in either direction. The friction of this brake can be increased or diminished by means of the thumb-screw P, while the lock-screw W prevents the accidental turning of screw P.

The degree of oscillation of the cot can be regulated by adjusting the position of the finger S on the leg *m*, which necessitates a corresponding change of the weight T on the leg *n*. The holes *i* are provided for this adjustment.

The motive power employed is immaterial, as either electricity, water, gravity, &c., can be used to advantage; but in case a spring-motor is employed it is my intention to use the winding device shown in Fig. 8. The mainspring is connected to the spindle *q*, which bears terminally the large gear-wheel *r*. Loosely fitting over a second spindle *t* and meshing with the gear *r* is the small gear-wheel *w*, which latter is formed integral with the crank-handle *y*. By this device a very powerful spring can be readily wound with the exertion of very little power. The handle *y* is removable from the spindle *t*.

As an efficient means for pleasantly disturbing the atmosphere about the cot and preventing insect intruders from gaining much rest in the immediate neighborhood I have provided the vertical rod X, to which is adjustably secured the horizontal rod Y, which latter supports a loosely-hanging drapery Z. This drapery will evidently oscillate simultaneously, but in a direction opposite to that of the cot, as a result of the resistance of the air and being above the center of oscillation or pivotal point.

I am aware that changes in the form and proportion of parts of the devices herein shown and described as an embodiment of my invention can be made without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations as fairly fall within the scope of my invention.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an article of the class described the combination with a suitable framework, a cot hung in said framework, a motor supported by said framework, a rod or lever connecting said motor with said cot, said rod being formed of a plurality of sections, and means for adjusting the degree of friction between said sections as set forth.

2. In an article of the class described the combination with a suitable framework or support, a cot hung in said framework, a motor supported by said framework, a rod or lever connecting said motor with said cot, said rod being formed of a plurality of overlapping sections and means for yieldingly connecting said sections together as set forth.

3. In combination with a suitable framework, a cot supported by said framework, a revolving crank situated on said framework, a lever connected to said cot and oscillated by said crank and means for adjusting the length or circle of revolution of said crank for the purpose set forth.

4. In combination with a suitable framework, a cot, trunnions projecting from said cot and forming knife-edge bearings, said bearings being adapted to rest on said framework, a motor connected to said framework, a rod or lever connecting said cot with said motor, said rod being adjustably and yieldingly connected with said cot or trunnions for the purpose set forth.

In witness whereof I hereunto set my hand in presence of two witnesses.

JOSEPH H. BENNING.

Witnesses:

LEE D. CRAIG,

WALTER R. CRAIG.