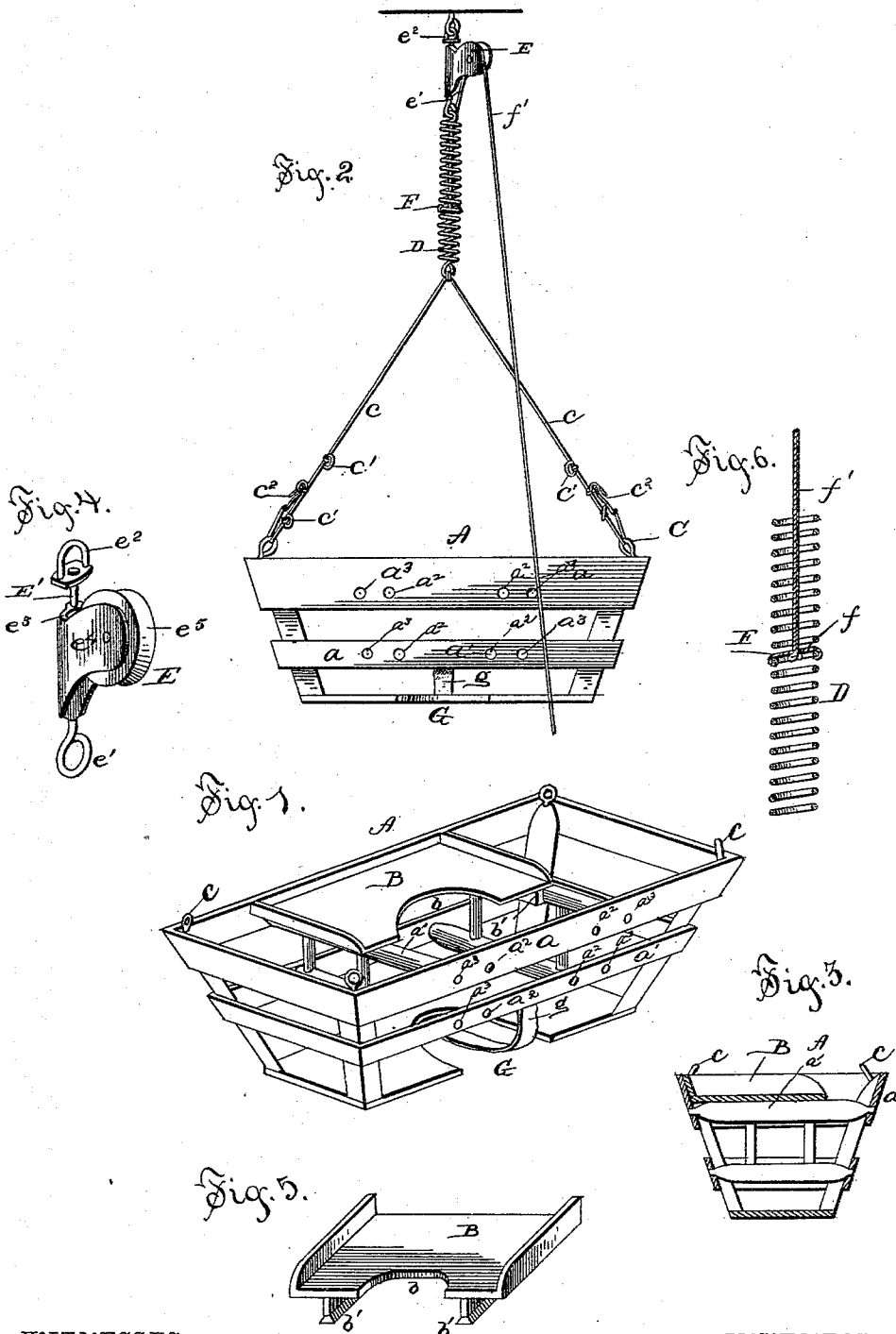


(No Model.)

A. W. GRAY.
BABY JUMPER.

No. 401,266.

Patented Apr. 9, 1889.



WITNESSES.

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BABY-JUMPER.

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To all whom it may concern:

Be it known that I, ALBERT WILLIAM GRAY, a citizen of the United States, and a resident of Mazomanie, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Combined Nursery-Chair and Swing; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a combined nursery-chair and swing.

The object is to produce a device which may be used either as a cradle or a swing, and also which will be capable of being adjusted to form both a table and a chair; furthermore, to produce a device which may be used as a jumper, and which will be of such construction that it may be operated either by a person seated in the room or by the child itself; furthermore, to produce a device which shall be simple of construction, efficient and durable in use, and comparatively inexpensive of production.

With these objects in view the invention consists of a frame of suitable configuration to be used as a cradle, the said frame being provided with screw-eyes to which the rope is attached for suspending the same from the ceiling of a room; furthermore, in the combination, with the said frame, of a number of openings formed in its sides and designed for the reception of arms when the cradle is to be used as a chair; furthermore, in the combination, with the frame having suitable openings formed in its sides, and arms fitting in the said openings and designed to be used when the device is converted into a chair, of a platform provided with flanges working on the said arms and designed to be used as a table; furthermore, in the combination, with the ropes to which the device is suspended, of a coiled spring secured thereto and having a swiveled block secured to its upper end, the lower end of the said block engaging a hook on the spring, and the upper end being provided with suitable means for attaching it to the ceiling or other proper support; furthermore, in the combination, with the said spring, of a plate secured between the coils, and hav-

ing an opening in which is secured a rope which passes over the pulley secured in the said block and to the floor, whereby, when weight is placed in the cradle and the rope is pulled, a swinging motion will be imparted to the cradle, and at the same time it will be caused to spring up and down, thereby imparting two distinct motions to the cradle; furthermore, in the combination, with the ropes to which the cradle is secured, of rings secured at different intervals of their lengths designed to be engaged by a hook secured to the ends of the ropes, whereby the cradle may be moved to any desired distance above the floor, or, if desired, be allowed to rest thereon, and, finally, in the combination and operation of the various parts whereby its objects are attained.

In the accompanying drawings, forming part of this specification, and in which like letters of reference indicate corresponding parts, Figure 1 is a perspective view of the device, showing the different parts in position. Fig. 2 is a side elevation of the cradle, showing the ropes secured thereto, provided with rings, by which its height from the floor may be regulated, the coiled spring secured to the upper end of the said rope, the block secured to the said spring, the rope secured to the spring and passing through the block, and the openings in the side of the cradle, by means of which it may be converted into a chair at will. Fig. 2^a is a detail view of the bottom of the cradle, showing the same cut away to allow the limbs of the child occupying the chair to rest on the ground when the device is used as a jumper. Fig. 3 is a transverse sectional view. Fig. 4 is a detail view of the peculiarly constructed block used in connection with this device. Fig. 5 is a detail view of the table-top, showing a flanged guide secured to its under side, by means of which it may be adjusted to the arms of the chair; and Fig. 6 is a vertical sectional view of the spring, showing the plate therein to which the rope for operating the device is secured.

Referring to the drawings, A designates the cradle, which may be constructed in any way desired, but preferably as shown in the drawings, on account of its strength, durability, lightness, and facility of manufacture.

In the slats *a*, which form the sides of the cradle, are a number of openings which are designed for the reception of the ends of the arms *a'* when the device is to be used as a chair. It will be observed that there are two sets of openings. The inner sets, *a*², are designed to be used when the child occupying the device is small; but when a larger child wishes to occupy the same the outer sets, *a*³, are used, so as to give it more room to move.

B designates the table, which is constructed with flanges on its upper side to prevent whatever may be placed on the table from falling off, and is cut away, as seen at *b*, so as to give the child more room to move around in the chair. To the under side of this table are secured two flanged guides, *b'*, which are designed to fit and slide on the arms *a'*. It will be observed that the guides have a flange extending on each side, so as to admit of being changed when the arms are moved to enlarge the chair. Thus when the arms occupy the inner openings, *a*², the flange will be on the outside of the arms; but when the arms occupy the outer openings, *a*³, the flange will be on the inside of the arms. At each of the four corners of the cradle is secured a screw-eye, *C*, or other suitable device, through which the ropes *c* pass. These ropes have a number of rings, *c'*, secured to them, which are designed to be engaged by hooks *c*², attached to the end of the ropes *c*, by means of which the cradle may be lowered or raised, as desired.

At the point where the four ropes meet is secured a coiled spring, *D*, to the opposite end of which is attached a block, *E*. This block is constructed as follows: The rod *E'*, to which the spring is secured, is provided at one end with a link, *e'*, and at the other end with a swivel, *e*², which permits the cradle to be turned in any desired direction without interfering in the least with the support to which it is secured. The rod *E'* is held loosely in place in a shoulder, *e*³, which is provided with two arms, *e*⁴, in which the pulley *e*⁵ is pivoted. Thus it will be seen that the cord or rope used has free play, and is not brought in contact with any part of the block, as would be the case were the ordinary block employed.

F designates a plate, which is secured between the coils of the spring at a point preferably near the bottom, and through the center of this plate extends an opening, *f*, which is designed for the reception of the rope *f'*, which passes over the pulley and operates the cradle, as before described.

It will be readily seen, in connection with the description given and the drawings furnished in this case, that the device is exceed-

ingly simple and highly useful and necessary in all households. Among the principal advantages claimed for this device are that it may be operated by a person seated at a distant part of the room by simply attaching the cord to the person's foot, and by a gentle swinging motion of the leg the cradle may be rocked and also made to spring up and down. Another feature is that the face of the child may be always kept away from the light, as the swivel admits of the cradle being turned as desired. When the child has become sufficiently strong to use its limbs, the cradle may then be converted into a chair, as before described, and the child's legs placed through the cut-away portion *G* in the bottom of the cradle, the strap *g* being placed between its legs to prevent its falling out of the cradle. The chair may then be lowered, by means of the hooks and rings before described, until the child's feet touch the floor, and it may then spring itself by pushing against the floor, or it may be taught to manipulate the spring to produce the same result. As a cradle it possesses great advantages over the old-style floor cradle, in that the motion is regular and smooth, and not possessing the jarring motion incident to the rockers moving over the joints of the floor, thereby being especially valuable in cases of sickness. When it is desired to remove the arms and table, it is only necessary to spring out the slats, when the arms may be easily removed.

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

1. The combination, with the cradle having openings formed in the sides thereof, of the arms for engaging the said openings, substantially as and for the purpose specified.

2. The combination of the cradle having openings formed in the sides thereof, arms for engaging the said openings, and a table provided with flanged guides for engaging the said arms, substantially as described.

3. The combination, with the cradle, the coil-spring, and means for attaching the spring to the cradle, of a plate secured between the coils of the spring, a pulley, and a rope secured to the said plate and passing over the pulley to the floor, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ALBERT WILLIAM GRAY.

Witnesses:

W. A. CORSON,
EDWIN DIMENT.