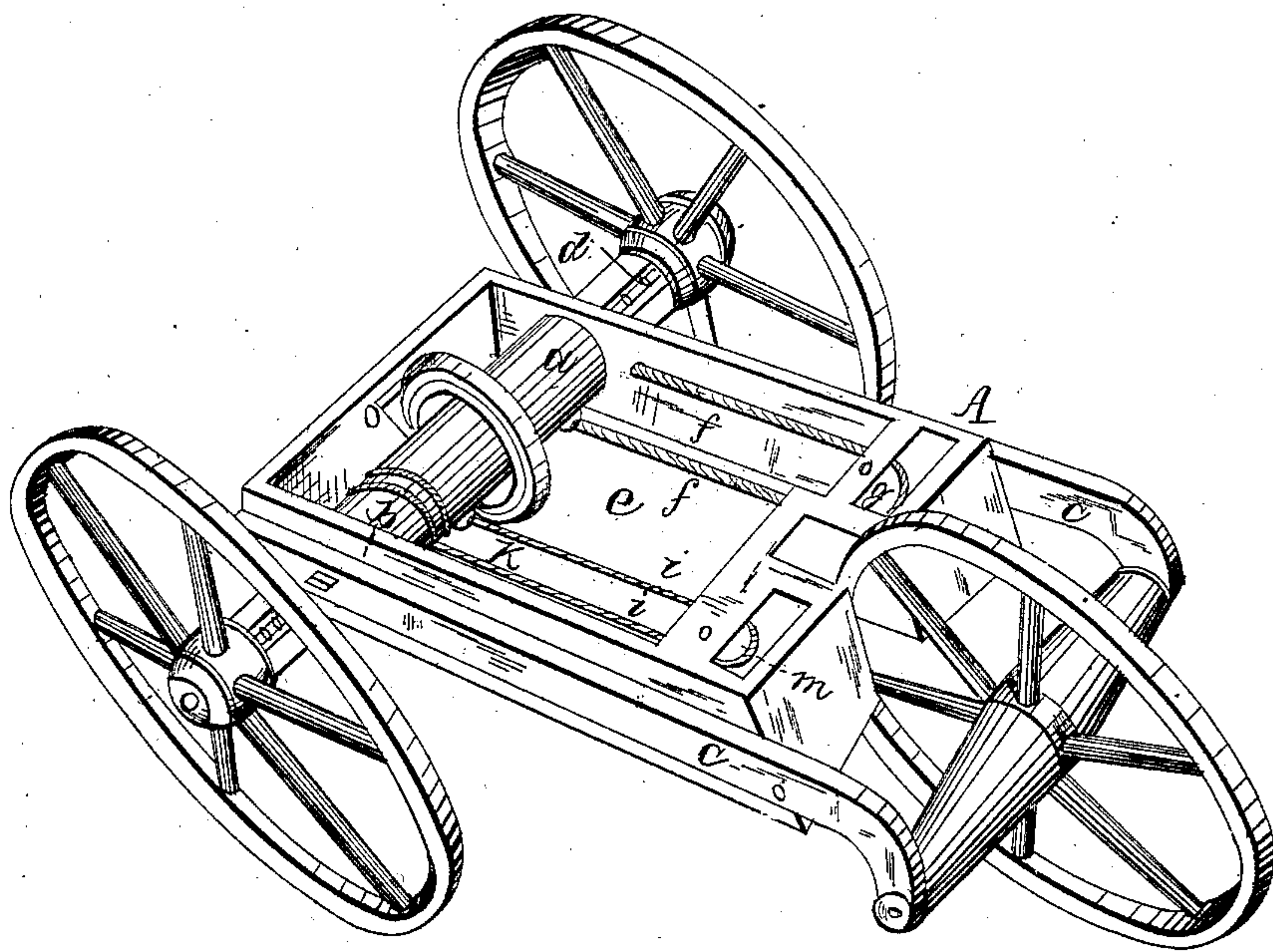


T. A. MADISON.  
Children's Carriage.

No. 63,541.

Patented Apr. 2. 1867.



Witnesses:

*T. A. Madison.*

*J. C. Munger.*

Inventor:

*T. A. Madison.*



# United States Patent Office.

TINDAL A. MADISON, OF TERRE HAUTE, INDIANA.

*Letters Patent No. 63,541, dated April 2, 1867.*

## IMPROVEMENT IN CARRIAGE FOR CHILDREN.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, TINDAL A. MADISON, of the city of Terre Haute, Vigo county, and State of Indiana, have invented a new and useful Improvement on the Carriage in common use for Children; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

I style the carriage with my improvement "the child's return carriage," and the nature of my invention consists in a revolving axle, winding up an elastic cord or spring, so arranged that when the carriage is moved from any given point by manual power to the limit of the elastic cord or spring, the carriage will return to the point from which it is sent. This carriage is designed for indoor use, and to supersede the cradle, crib, &c. It is of a much more gentle and agreeable motion than any other known device, not even excepting the swing, being so arranged that the change of direction or reverse motion can scarcely be perceptible to the child occupant. It takes less room in the nursery than any rocking article of furniture in common use, and by simply moving a bolt or bolts, attached to the axle, the wheels are unlocked and the axle locked, when it is ready for use as other carriages; and further commends itself to the attention of mothers and nurses, in that it does not necessitate the transfer of the infant, as is sometimes the case, from the carriage to the crib, before gentle sleep has performed its office.

To enable others skilled in the art to make and use my invention, I here proceed to describe its construction and operation.

Figure A is a perspective drawing of a carriage with my invention.

*a* the revolving axle, with a drum, or enlargement of the middle portion, in size about one-sixth of the diameter of the main wheels of the carriage. This axle is kept in place by means of journals turning in boxes secured to the under side of the side-bars, at *b b*. *c c*, side-bars designed as the connections between the back and forward axles, and to hold them in their proper relation to each other. *d d*, bolts firmly attached to the axle, and connect the axle to the wheels by sliding them into mortises in the ends of the hubs, and also connect the axle to the side-bars *c c*, by withdrawing them from the hubs, and sliding them into mortises in the side-bars, (for mortises see dotted lines,) thus arresting the axle in its rotation and leaving the wheels to turn alone. This is done when it is necessary to use the carriage for ordinary purposes. *e*, the box, without the cover, attached to and sustained by the side-bars *c c*, and which enclose most of the operative parts of my invention. *ff* the elastic cord. This may be of any desirable form, partaking either of that of a cord or strap; but which, for greater brevity, I shall term, in this specification, cord. This cord winds up on the revolving axle in the direction of the arrow, as far as its extending qualities will bear, when the motion is reversed by the contraction of the cord, and the carriage returns to the point from whence it started. The distance the carriage goes, within the natural stretch of the cord, depends upon the amount of propelling power applied. The extreme distance to which the carriage can be sent depends upon the length of the elastic cord *ff*, and any desirable length may be used by passing it back and forth in its course, round a series of friction-pulleys instead of one, as shown in the drawing at *g*. The elastic cord *ff* is fastened to the side of the box at *h*, then passed round the friction-pulley *g*, then back, and fastened to the axle *a*. In putting it on, it should be drawn taut enough to keep it straight and in place. The faces of all friction-pulleys around which the cords work are concave like those of the common sheave. For the better understanding of what follows it may be well to remark in this connection that carriages to which my invention is attached should have as many as three wheels; and the direction of the propelling power may be either forward or back, but it is better to have the attachment so arranged as to give the propelling motion from the side (either forward or back) usually occupied by the person ordinarily using the carriage. *g m*, friction-pulleys, round which the cords work. *i i* is the regulating cord, made of some strong, unelastic fibre, except the small portion from the knot *k*, to its fastening *l*, which is elastic like the cord *ff*. This cord prevents the carriage from going beyond the natural stretch of the operating cord *ff*, and the breakage which would result therefrom by any undue force which might be applied; and also the further double purpose of checking the carriage on its return to the original starting point, and to give it another forward motion before the propelling power is again applied. These effects are produced in this way. The end of the regulating cord *i i*, nearest the centre of the axle, after drawing it sufficiently taut to keep it



in place, is wound around the axle as many times as the cord *ff* will wind up round the axle *a*, when it is revolving, without danger of breaking, and at that point is fastened to the axle. The other (elastic) end having been fastened to the axle at *I*, in like manner, on the same side of the axle, and on a line with the fastening of the elastic cord *ff*. Now see the effect of this arrangement: Revolve the axle in the direction of the arrows, and it winds up the elastic cord *ff*, and at the same time the elastic end, at *I*, of the regulating cord *ii*, while the opposite end of cord *ii* is unwinding; which, when entirely unwound, prevents the axle from revolving any farther in that direction, and the elastic cord *ff* reverses the motion and brings the carriage back to the first starting point. Now observe the design and action of the elastic end of the cord *ii*: When the carriage has returned, it does not stop precisely at its usual place of rest, but passes as far by as the short elastic cord will permit, which in turn reverses the motion and starts it again forward, so that a slight touch with the hand, as it passes the resting point, will send it again on its round. *n* is a spring, similar in its construction and operation to that ordinarily used for clocks and watches, and needs no other explanation in its present application than that when used it is in place of the elastic cord *ff*, or in combination with it. The attachment is effected by attaching one end to the axle *a*, wrapping it round the same a number of times, corresponding to its length, and securing the other end to some stationary part of the box, as at *o*. This spring should be round the axle so loose that its complete winding up shall exactly correspond, if used in connection, with the winding up of the elastic cord *ff*, or, if used instead of the cord *ff*, to the unwinding of the unelastic end of the regulating cord *ii*. The box *e*, which encloses the working cords, I have drawn to the full width usual for carriage bodies. In this, however, I do not confine myself to any particular size or form. The cords and spring may be arranged to work very close together, requiring but little room. The friction-pulley *g*, or pulleys round which the elastic cord *ff* works, may run on a vertical shaft, and the pulley *m*, round which the regulating cord *ii* works, should be on an angle which is best suited to keep the cord in place. The strength of the elastic cord *ff* should be sufficient for the greatest weight of carriage, and the probable load it will have to carry; but the power to reverse the motion of the carriage can be increased or diminished by the way in which it is attached. If the power is to be increased, the cord should be put on more taut, if to be diminished, less so. I usually construct the parts peculiar to my invention substantially after the mode herein laid down, but do not confine myself to any special kind of material. Neither do I confine myself to the precise arrangements described, these depending somewhat upon the peculiar structure and requirements of the carriage to which they are to be attached.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the revolving axle *a*, with the bolts *d d*, or their equivalents, for the purpose of alternately attaching the axle *a* to the carriage-wheels, causing them to revolve together, and attaching the axle *a* to the side-bars *c c*, causing the carriage-wheel to revolve alone,
2. The combination of the revolving axle *a*, the elastic cord *ff*, and the friction-pulley *g*, or their equivalents, for the purpose described; also, the combination of the axle *a*, and the spring *n*, for the same purpose.
3. The combination of the axle *a*, the regulating cord *ii*, and the friction-pulley *m*, or their equivalents, acting in concert with the elastic cord *ff*, or the spring *n*, for the purpose described.

T. A. MADISON.

Witnesses:

H. E. MADISON,  
J. C. MEISSINGER.