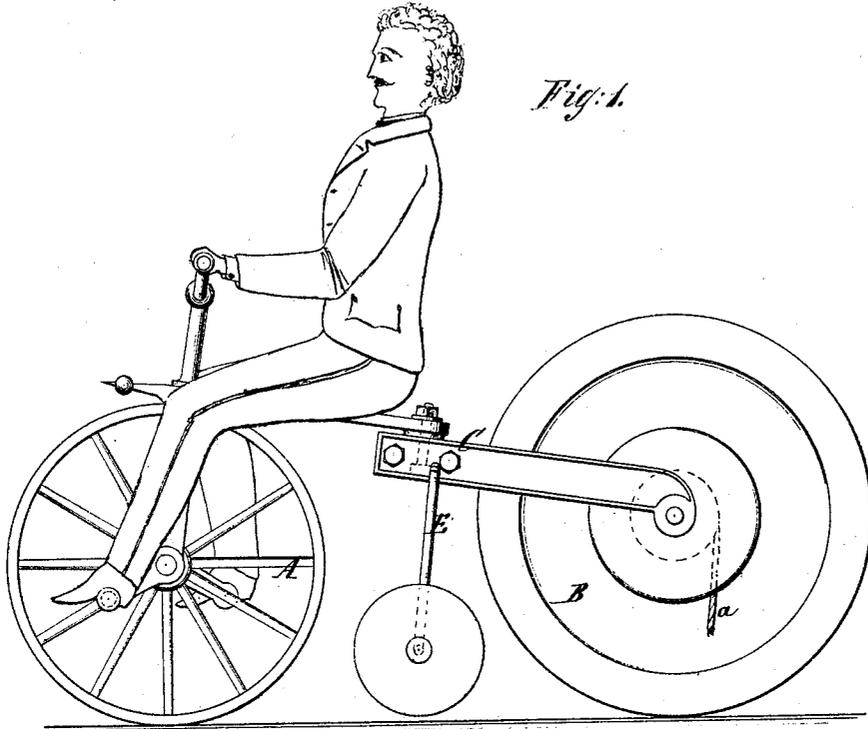


*A. M. Allen,*

*Toy Propeller.*

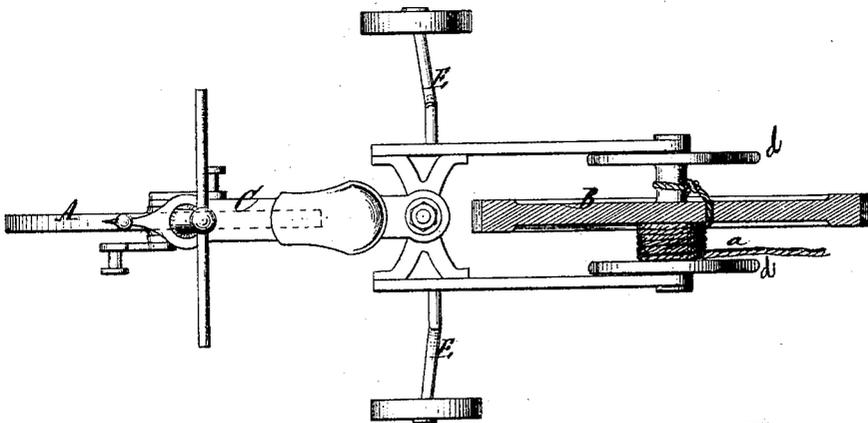
*No. 112104.*

*Patented Feb. 28. 1871.*



*Fig. 1.*

*Fig. 2.*



*Witnesses:*  
*L. Stahlert*  
*E. F. Hastenhuber*

*Inventor:*  
*Arthur M. Allen*  
*By Van Santvoord & Knapp*  
*his Attys*

# UNITED STATES PATENT OFFICE.

ARTHUR M. ALLEN, OF NEW YORK, N. Y.

## IMPROVEMENT IN TOY PROPELLERS.

Specification forming part of Letters Patent No. **112,104**, dated February 28, 1871; antedated February 11, 1871.

*To all whom it may concern:*

Be it known that I, ARTHUR M. ALLEN, of the city, county, and State of New York, have invented a new and Improved Toy Propeller; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which drawing—

Figure 1 represents a sectional side view of this invention. Fig. 2 is a plan or top view of the same.

Similar letters indicate corresponding parts.

This invention relates to that class of devices known as "toy propellers;" and it consists in providing the same with a wheel having a loaded rim journaled between reaches in such a manner as to receive a rapid revolving motion imparted to the wheel through the medium of a string; also, in the combination and arrangement of certain parts, all of which will hereinafter be described.

In the drawing I have shown a toy velocipede composed of a front wheel, A, and a hind wheel, B, which is connected with the front wheel by a reach, C. Said hind wheel is constructed with a loaded rim, or it may be simply furnished with weights attached at intervals to its rim, so that when a rapid revolving motion is imparted to the same the momentum of the rim will be able to keep up the speed for a considerable length of time.

Upon the outer ends of the axle carrying the wheel B may be formed or otherwise secured disks *d d*, in such a manner that when the loaded wheel rapidly revolves, the string will be wound upon the axle between the disk and the loaded wheel, and not interfere with the free revolution of the wheel, nor be injured by coming in contact with the bearing formed in the reaches.

The motion of the wheel B is produced by means of a cord, *a*, which winds up on the axle of said wheel, and when the toy is raised from the ground and the cord is rapidly pulled a quick revolving motion is imparted to said wheel. If the propeller is then carefully replaced on the ground, it will start off with considerable speed.

If the toy propeller has only two wheels, one behind the other, the loaded wheel B serves to keep the propeller when in motion in an upright position, and a bicycle is obtained which can be made to run a considerable distance without tumbling over.

To prevent the toy from tumbling over when the speed decreases, I have secured in the reach two arms, E, projecting in opposite directions. Each of these arms carries a wheel, which is set to run close to the ground without touching the same when the machine is in an upright position.

When the propeller has three or more wheels, the loaded wheel B may be mounted between the two hind wheels, and in this case said loaded wheel can be made smaller than the hind wheels, so that it does not come in contact with the ground when the propeller is in motion. A bar with loaded ends may also be used instead of such wheels.

By setting the fore and hind wheels at an angle with each other and causing them to lean considerably inward, the toy will revolve in a circle, though not for a long time, since the momentum of the whole body of the wheels seeks to fly off at a tangent, whereby the accumulated force of the loaded wheel is materially checked.

To prevent the toy from sustaining any injury from coming in contact with a wall or other obstructions, I propose to supply the same with a buffer or guard provided with a spring of any suitable construction.

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

A toy propeller consisting of the wheel B, provided with a loaded rim, as described, journaled between reaches and operated with a string, side wheels, E E, front wheel, A, with a reach carrying an image, the whole constructed, arranged, and operated as set forth.

This specification signed by me this 24th day of May, 1870.

ARTHUR M. ALLEN.

Witnesses:

E. F. KASTENHUBER,  
C. WAHLERS.