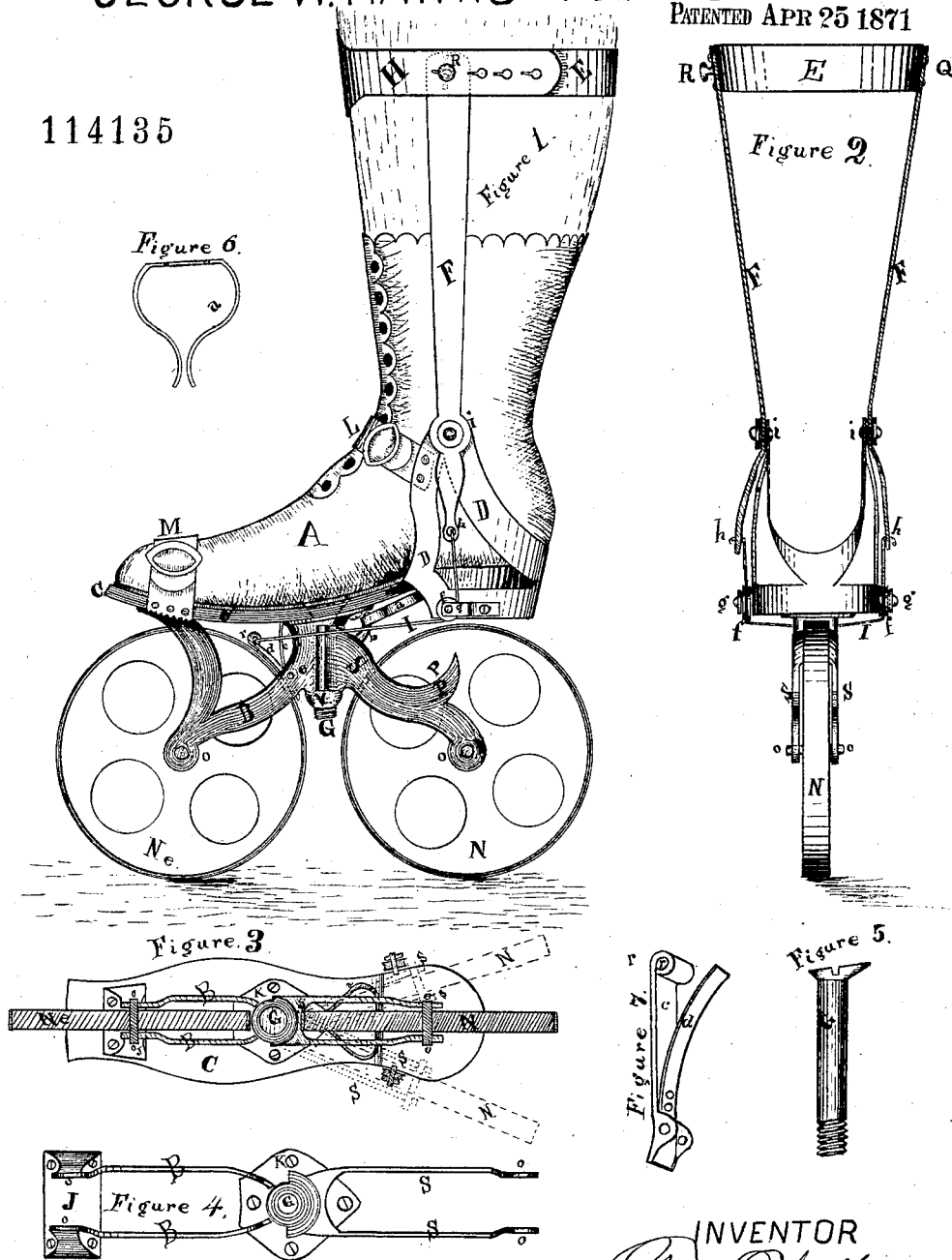


# GEORGE W. HAWK'S MENTUPEDE.

PATENTED APR 25 1871

114135



WITNESSES.

INVENTOR  
 George W. Hawk  
 Roy W. Campbell  
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# United States Patent Office.

GEORGE W. HAWK, OF CHICAGO, ILLINOIS.

Letters Patent No. 114,135, dated April 25, 1871; antedated April 18, 1871.

## IMPROVEMENT IN WHEEL-SKATES.

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, GEORGE W. HAWK, of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in the art of Skating by the use of two wheels as runners, which I have named the Mentupede; and I do hereby declare and make known that the following is a full, clear, and exact description of the same, reference being made in so doing to the accompanying drawing and letters and figures marked thereon, which forms part of this specification.

My said invention consists in a novel mechanical device to be attached to the foot of a person in such a manner as to be perfectly secure and at the same time take the place of a skate, as a healthy exercise, being perfectly safe and very easy to manage. By the use of two wheels of suitable sizes the friction amounts to but little, so that the device may be used on the streets and walks, and run over uneven surfaces at pleasure, substantially as hereinafter described.

To enable those skilled in the art to understand how to make and use my invention, I will proceed to describe the same with particularity, reference being made in so doing to the aforesaid drawing, in which—

Figure 1 represents a side elevation of my invention; Figure 2, a vertical rear view or heel thereof taken at the line *x* in fig. 1;

Figure 3 is a bottom view of the foot-stand *C*, showing the method of securing the support *B* to the same;

Figure 4 represents a bottom view of the vibrating support *S*;

Figure 5, a view of the pivot-bolt *G*;

Figure 6 is the shape of the spring *a*; and

Figure 7, a perspective view of the friction-lever *c* and spring *d*.

Similar letters of reference in the different figures indicate the same parts in my invention.

*A* represents a foot secured to the foot-stand *C*, fig. 1, by means of suitable straps and buckles *M L H*, or other suitable devices may be used for the same purpose if desired. Said straps *M L* may be secured to the foot-stand *C*, fig. 1, by rivets, screws, or slots.

*B* represents the stationary or main support for the wheel *N<sub>e</sub>*, vibrating support and wheel *S* and *N*.

Said support *B* is secured to the bottom of the foot-stand *C* by rivets or screws, as shown in figs. 3 and 4, or otherwise, as desired.

It will be observed that the support *B* is provided with a socket, into which the vibrating pivoted support *S* is made to fit in such a manner as to form a hinge or joint, and both parts *B* and *S*, figs. 1 and 4, are connected and held together by the pivot-bolt *G* passing through the top of the foot-stand *C* and into

the support *B*, then through the vibrator *S*, and held into place by a screw-thread or any other suitable device at *e*, as shown by the red dotted lines in fig. 1.

The vibrating support *S* is provided with a lug or projection, *b*, against which the spring *a*, figs. 1, 3, and 6, acts in such a manner as to keep the vibrator and wheel *N* in a straight line with the wheel *N<sub>e</sub>* when the machine is raised and in a hanging position.

It will be observed that the course of the machine while running may be changed, at the will of the operator, by twisting the foot-stand *C* so as to throw the heel of the same to the right or left of the center, thus moving the steering-wheel out of line, causing the machine to curve, as more clearly shown in fig. 3 by the dark dotted lines *N N N* and *S S S*. *N<sub>e</sub>* is the stationary position of the front wheel, indicated by the dark dotted lines.

The wheels *N<sub>e</sub>* and *N* may be made as shown in fig. 1, or in any other style desired, of any suitable material, and provided with suitable bands or tires of brass, iron, steel, wood, or vulcanized India rubber, as desired.

The aforesaid wheels *N<sub>e</sub>* and *N* are provided with lugs or journals at their centers, and the said journals revolve in suitable boxes or bearings, as shown in figs. 1, 2, and 4 at *o o* thereof; or instead of said journals the wheels may revolve on a stationary bolt or axle, or any other suitable device.

The projection *P* on the aforesaid vibrating support *S* may be extended up above the top of the wheel *N*, and be provided with friction-rollers acting against the bottom of the aforesaid foot-stand *C*, for the purpose of preventing said wheel coming in contact with the same.

The spring *a* is fastened and secured to the aforesaid foot-stand by means of rivets, screws, or otherwise, as desired; or instead of the aforesaid device a suitable spring may be arranged on and secured to the vibrating support *S*, and the same act against the foot-stand *C* or the support *B*, for the purpose shown in figs. 1 and 3.

*E* represents a curved metallic strip shaped to fit the calf of the leg, and provided with a suitable strap, *H*, secured to one end of the said strip *E* by rivets or otherwise, as desired. Said strap *H* may be provided with suitable button-holes or hooks, as shown in fig. 1, for the purpose of clasping and securing the two parts around the leg.

*R* is a button or knob for holding one end of said strap. Suitable buckles or clasps may be used instead of the above device, if desired.

The said strip *E* has attached to its ends the upper end of the brake-levers *F F F*, by means of rivets, as shown in figs. 1 and 2. The said brake-levers are pivoted to the heel-support *D* at *i i*, thereby forming

a fulcrum thereof for the loop or fastening on the lower end of the levers F F at *h h*, figs. 1 and 2, to which is fastened the ends of the cord or chain I, as shown.

Said cord or chain passes over grooved pulleys *f f*, pivoted at *g g*, figs. 1 and 2; as shown, then through a loop, P, in the friction-lever *c*. Said friction-lever is pivoted at *e*, as shown by the dark dotted lines in fig. 1. It will be observed that by moving said brake-levers at the top forward or backward, as the case may be, that *h h* draws on the said cord or chain I, thus forcing the lower end or rubber part of said friction-lever against the said wheel *N e*, thereby retarding its motion.

Said lever *c* is provided with a suitable spring, *d*, as shown in figs. 1 and 7, which acts against the foot-stand C in such a manner as to keep the rubber part of said lever away from the wheel when the cord or chain is slack.

Having described the construction and operation of my mentupede,

I will now specify what I claim and desire to secure by Letters Patent—

1. The combination and arrangement of the foot-stand C, straps or clasps M L, main support B, vibrating pivoted support S, wheels *N e N*, having suitable tires or bands, also suitable bearings *o o o o*, joint and pivot-bolt G, friction-lever *c*, and its spring *d*, operating substantially as and for the purposes herein shown and specified.

2. The metallic strip E, suitable strap H, knob R, brake-levers F F, heel-support D, and fulcrums *i i*, cord or chain I, loop or clasp *h*, pulleys *f f*, operating substantially as and for the purposes herein described and set forth.

3. The combination of the foot-stand C, stationary support B as arranged for the front wheel *N e*, pivoted vibrating support S as arranged for the rear wheel N, double-acting spring *a*, and lug *b*, for the purposes herein shown and specified.

4. The joint and bolt G arranged between the front wheel *N e* and rear wheel N.

G. W. HAWK.

Witnesses:

C. G. UDELL,  
B. H. CAMPBELL.