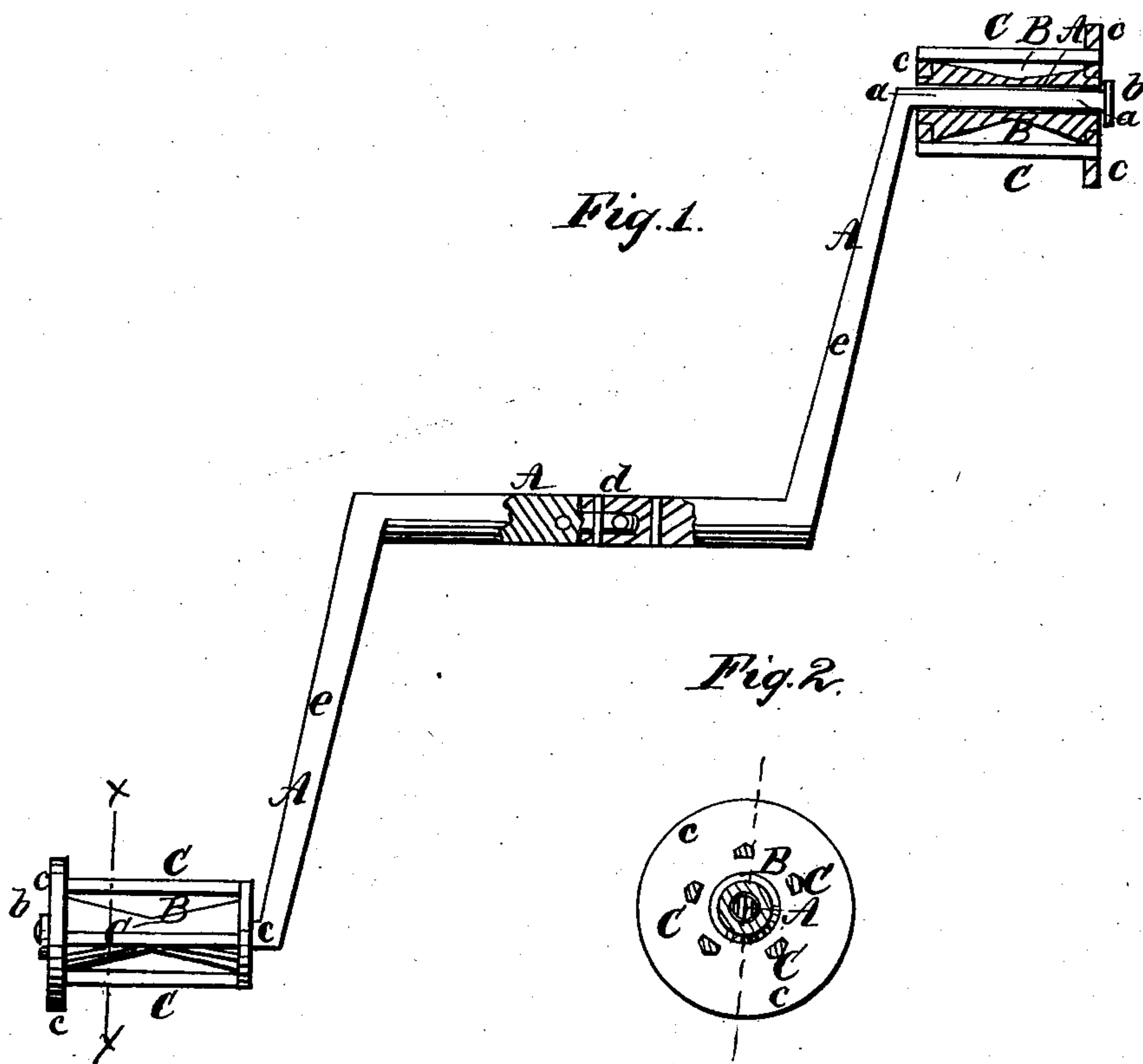


*McC. Young.*  
*Velocipede.*  
*N<sup>o</sup> 96,648. Patented Nov. 9, 1869.*



*Witnesses*

*John Becker*  
*John A. Carter*

*Inventor.*

*McC. Young*  
*PER [Signature]*

# UNITED STATES PATENT OFFICE.

McCLINTOCK YOUNG, OF FREDERICK, MARYLAND.

## IMPROVEMENT IN CRANK-AXLES FOR VELOCIPEDES.

Specification forming part of Letters Patent No. 96,648, dated November 9, 1869.

*To all whom it may concern.*

Be it known that I, McCLINTOCK YOUNG, of Frederick, in the county of Frederick and State of Maryland, have invented a new and Improved Crank-Axle and Treadle for Velocipedes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 represents a side view, partly in section, of a crank-axle provided with my improved treadle. Fig. 2 is a vertical transverse section of the latter taken on the plane of the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new manner of constructing treadles for velocipede-cranks, with an object of making them both light and reliable, as well as of cheap construction, and to a novel construction of crank-axle and crank, to enable the latter to be formed on the former.

The invention consists, first, in making a wooden spool, and in attaching to its flanges five or more rails, so that one or two such rails will form a convenient foot-support.

The invention also consists in making the crank-axle of two pieces, joined within the wheel, so as to enable the cranks to be formed on the said pieces, which will effectually prevent them from working loose.

A in the drawings represents the driving-crank axle of the velocipede. Upon its crank-pins *a* are hung spools B B, each spool being held in place by a shoulder, *b*, of the crank-

pin. Each spool has shoulders *c* at both ends, and these shoulders are the means of supporting five or more horizontal rails, C C, which are rigidly fastened in them. The several rails serve as supports for the feet of the person propelling the velocipede. When only one rail is used by the rider, the hollow of the foot can be utilized for applying the power. This treadle is very light and strong, and can be made larger or smaller to suit short or long legged persons for the same machine.

The shaft A is made in two pieces, which are united at or about the middle, preferably by a socket-joint and lock-pin *d*, as shown in Fig. 1, although they might be fastened by screwing together or otherwise. The crank *e* and crank-pins *a* are respectively made of the same pieces as the two parts of the axle. The advantages of this construction are, lightness combined with strength, the enlargement of cranks when made in separate pieces, and secured to shaft by keys or other device, being in this construction avoided, thereby saving the weight of such enlargements and material, and also preventing the cranks from getting loose, which is now a source of great trouble with velocipede-cranks of the ordinary construction.

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

A velocipede-axle formed of two pieces, A A, fastened together by a socket-joint and lock-pin, *d*, as shown in Fig. 1 of drawings.

McCLINTOCK YOUNG.

Witnesses:

W. R. JOHNSON,  
JOHN RHODES.