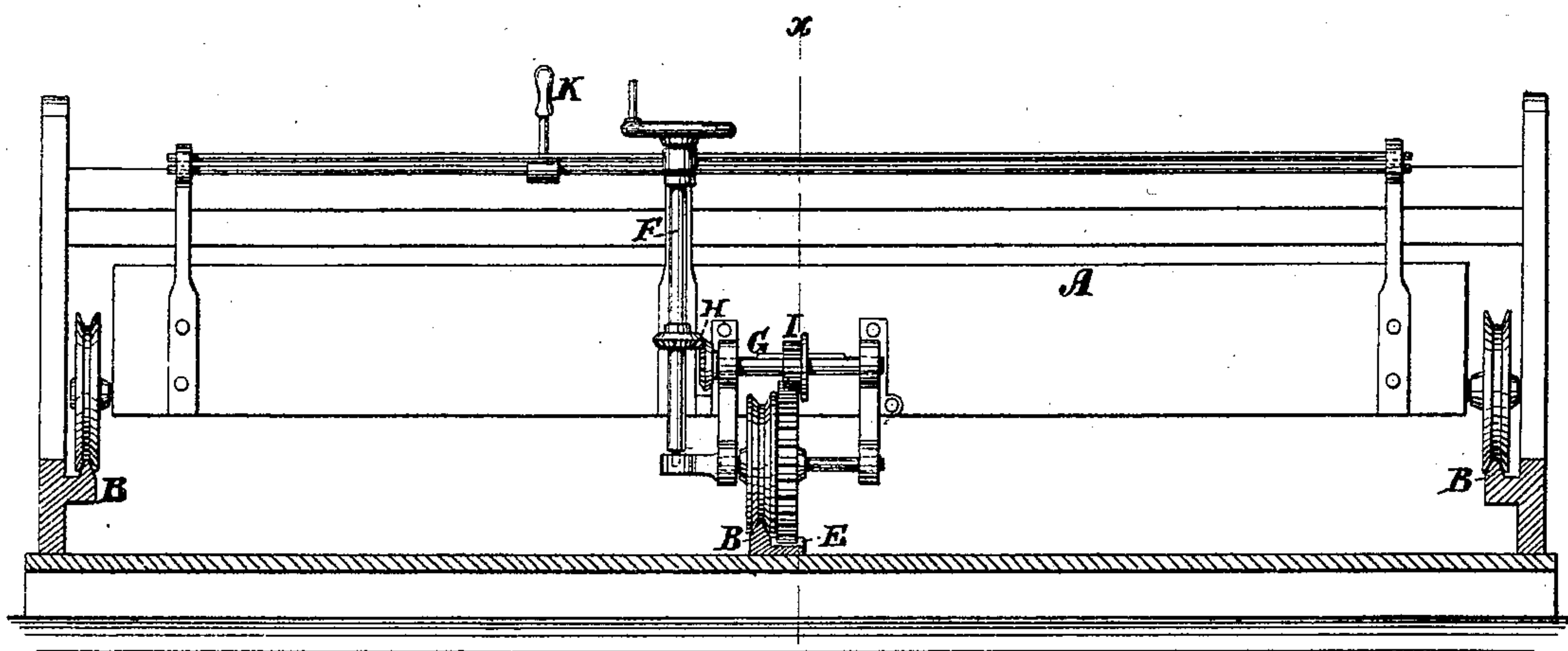


J. J. DEWEY.  
Spinning-Mules.

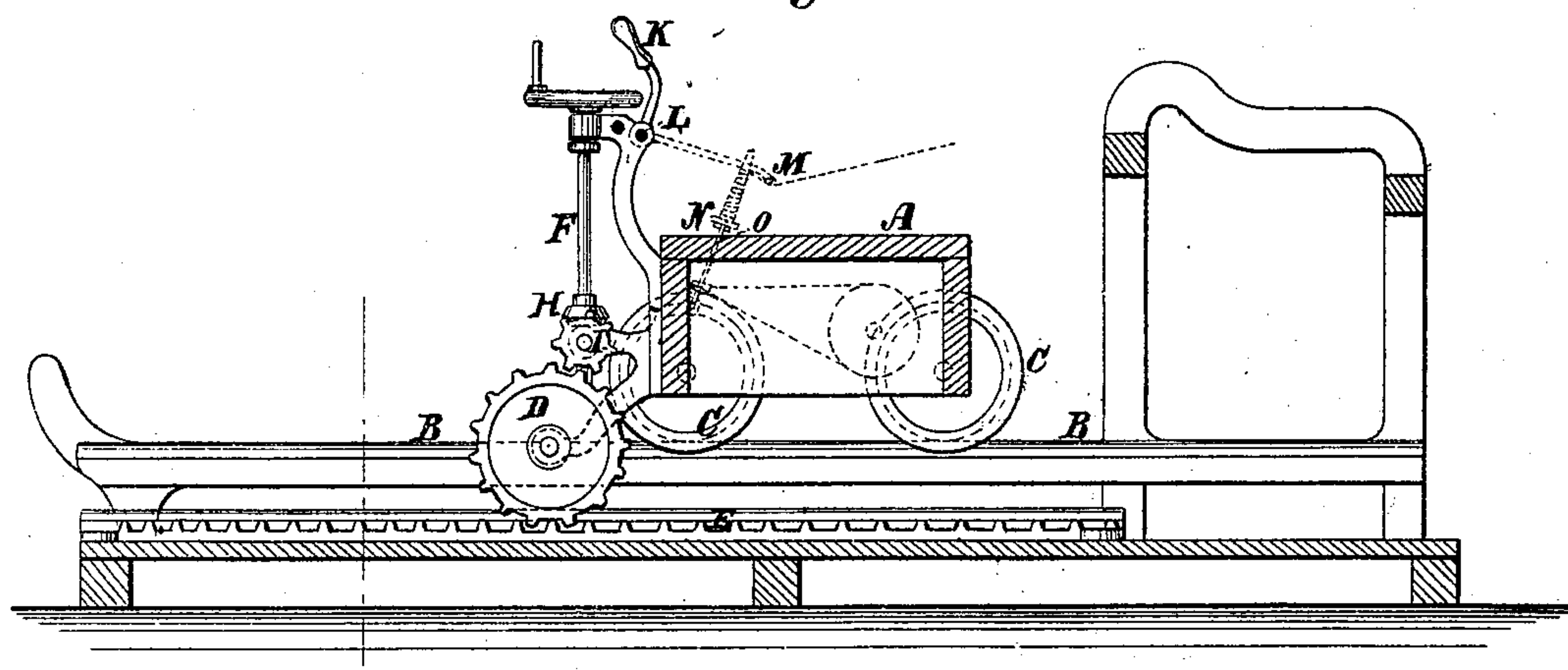
No. 139,051.

Patented May 20, 1873.

*Fig. 1.*



*Fig. 2.*



Witnesses:

*A. Beymer and Son.*  
*Card quick*

Inventor:

*J. J. Dewey*  
*Munnell*  
Attorneys.

PER

# UNITED STATES PATENT OFFICE.

JOHN J. DEWEY, OF QUEECHEE, VERMONT.

## IMPROVEMENT IN SPINNING-MULES.

Specification forming part of Letters Patent No. **139,651**, dated May 20, 1873; application filed February 15, 1873.

*To all whom it may concern:*

Be it known that I, JOHN J. DEWEY, of Queechee, in the county of Windsor and State of Vermont, have invented a new and useful Improvement in Self-Operating Spinning Mules or Jacks, of which the following is a specification:

My invention consists of a combination, with the carriage of a spinning-mule, of gearing arranged for facilitating the running of the carriage in by hand (first throwing off the driving-belt and turning the spindles slowly) when the bobbins are full and ready to be doffed, so that the yarn may be wound a few times around the bottoms of the bobbins to fasten it, and then run down below the bobbins onto the spindles, so as to be held, when the bobbins are doffed, ready to be run upon the new bobbins. By this means I am also enabled to wind upon the spindles the packing of fine threads for holding the bobbins thereto by friction.

This kind of winding cannot be done when the spindles are driven in the regular way by the driving-belt and the machine is subject to the regular order of operations, because it must, of necessity, be done according to the judgment of the attendant in each particular case, particularly in winding the packing on the spindles; hence I provide gearing, by means of which, after throwing off the driving-belt, the carriage may be run in with facility instead of pushing it in by a direct application of force; for, although it is possible for a strong man to push it in by main force, the exertion required is altogether too great, and for which some workmen would be entirely incapable with some machines. I therefore provide a hand-crank and reducing-gear, so as to make the operation easy for any spinner, and enable him to run the carriage in with one hand while controlling the yarn by the follower with the other.

In applying this hand driving-gear I avail myself of the toothed wheel used on some spinning-machine carriages for certain purposes, and gearing with a toothed rack on the floor; but where such machines are not

provided with these devices I apply them and connect my hand-gear with this wheel, so that by turning it I make it run the carriage in.

Figure 1 is a front elevation of the carriage of a spinning-mule provided with my improvement, and Fig. 2 is a section of Fig. 1 on the line *x x*.

Similar letters of reference indicate corresponding parts.

A represents the carriage of the mule, B the rails or ways on which it traverses, and C the wheels on which it runs. D is the toothed wheel which is found on the carriage of some mules, and E the toothed rack on the floor, with which it gears. With this wheel, whether already on the machine or specially applied for the end I have in view, I gear a hand crank-shaft, F, by means of the counter-shaft G, bevel-wheels H, and a pinion, I, or any other equivalent means. The pinion is much smaller than the wheel, and adds considerably to the leverage of the crank, and thus makes it easy to run the carriage in by hand. Besides the application of this gearing to the carriage, I apply a lever or handle, K, to the follower-rod L, so that I can, with one hand, move the follower-wire M down further than it is moved by the automatic devices in the regular operations of the machine, and thus cause the yarn or thread to wind down below the bobbins N onto the spindles O, as before stated, while I am forcing the carriage in with one hand by the crank-shaft F.

It will be readily seen that with these contrivances I can wind the yarn on the base of the bobbins or on the spindles, as I wish, and control the winding as needed.

If, in winding on the fine yarns or packing for holding the bobbins to the spindles, I do not get enough on, as I probably will not, by once running the carriage in, I can shift the driving-belt on and run the carriage out by it, at the same time spinning the threads, and then shift it off and run the carriage in again by hand, repeating the operations as many times as I may wish to do.

Having thus described my invention, I



claim as new and desire to secure by Letters Patent—

1. The combination, with a spinning mule or jack, of a hand-crank and reducing-gearing, arranged substantially as described, and adapted for running the carriage in by hand when the driving-belt is thrown off, substantially as specified.

2. In a spinning mule or jack having gearing for running the carriage in by hand, as above described, a lever, K, combined with the follower-rod L, substantially as specified.

JOHN JASPER DEWEY.

Witnesses:

WM. S. DEWEY,

WILLIAM LINDSEY.