T. MAYOR.

Speeder.

No. 165,352. Patented July 6, 1875.

Fig. 1.

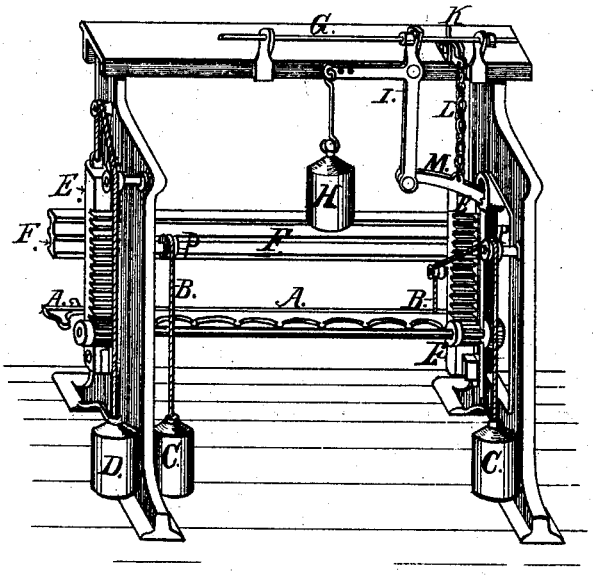
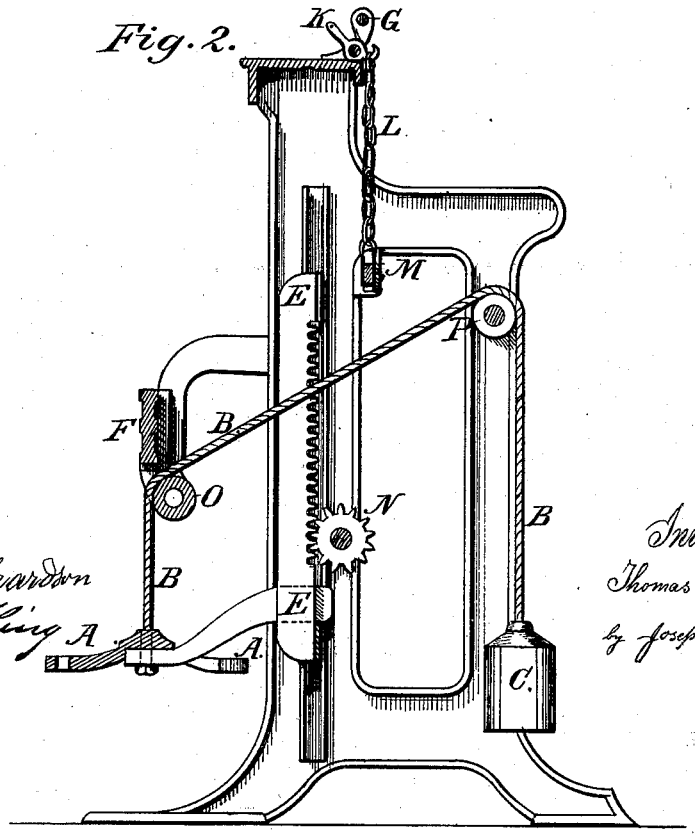


Fig. 2.



Witnesses
James C. Richardson
Walter C. King

Inventor
Thomas Mayor
by Joseph A. Miller
Attorney

UNITED STATES PATENT OFFICE.

THOMAS MAYOR, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN SPEEDERS.

Specification forming part of Letters Patent No. **165,352**, dated July 6, 1875; application filed July 18, 1874.

To all whom it may concern:

Be it known that I, THOMAS MAYOR, of the city and county of Providence, State of Rhode Island, have invented a new and useful Improvement in Speeders for Spinning and Twisting Roving; and I do hereby declare that the following is a full, clear, and exact description thereof, which, with the accompanying drawings, forming part of this specification, will enable others skilled in the art to make and use the same.

In the accompanying drawings, Figure I is a perspective view of part of a speeder-frame. Fig. II is a vertical section of the same, showing the manner of counterweighting the reciprocating rail.

Similar letters of reference indicate corresponding parts.

My invention relates to that class of speeders for spinning and twisting roving in which one or two rows of spindles are placed upon a projecting reciprocating step-rail supported by brackets from a vertically-reciprocating rack operated by a pinion in the body of the frame. In such machines serious difficulties exist, and to obviate them is the object of my invention.

When, in a speeder, the bobbins are completed and ready to be doffed, the machine is stopped automatically by the slide raising the arm M, so as to disengage the pawl at its lower end and allow the weight H to act upon the shifting-rod G through the lever I, by which means the driving-belt is placed upon the loose pulley. When, however, the operator finds it necessary to stop the machine for the purpose of winding back or changing the relative speed of the different parts, or to mend broken ends, it has heretofore been necessary in most cases to pass along the front of the machine, and, going behind the same, raise the weight H and trip the arm M, and thus allow the weight H to act upon the shifting-rod G, after which the operator had to return to the front of the machine. To avoid this great loss of time and exertion I place on top of the frame the lever K, so that the same may be easily reached by the operator from the front of the machine-frame. This lever I connect with the arm M by means of a chain, strap, or flexible rod, so that the operator may, by pulling down the lever K, raise the arm M, and so allow the weight H to act upon the shifting-rod G, and thus stop the machine without going behind the same, thus saving a large amount of valuable time and the extra exertion of the operative.

By means of the counter-weights C C the weight of the reciprocating step-rail A, with all the weight of the spindles and bobbins supported by the same, is balanced. This whole weight, being very considerable in large frames, has heretofore been supported by brackets projecting from the reciprocating rack E, causing considerable friction against the sides of the vertical slides in which the rack moves, and, consequently, loss of power. The great weight sustained all on one side, and some distance from the rack, makes the same bind and wear forward on the upper, and rearward on the lower, end of the rack and slides, and this wear soon throws the step of the spindle out of its true line, thus not only increasing the friction, but destroying the true operation of the spindle. To obviate all this I secure to the rail F two or more brackets supporting loose sheaves O, and also sheaves P on the rear to the frame of the speeder, and to the step-rail A I secure a chain, wire, rope, or band, and pass the same over the sheaves O and P, and secure the other end to the weight C, which is made so heavy as to completely balance the step-rail A and its appendages, so that no weight shall bear the rack against the slides, but the reciprocating motion shall be free and easy without any unnecessary friction and loss of power.

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

The combination, with the shifting-rod G, the weighted lever I, and the arm M, of the lever K, connected by a chain or its equivalent with the arm M, so that by moving the lever K in the proper direction the arm M is raised and the speeder stopped, substantially as and for the purpose specified.

THOMAS MAYOR.

Witnesses:

JOSEPH A. MILLER,

L. P. LANGWORTHY.