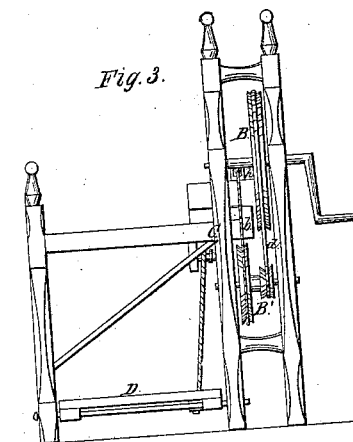
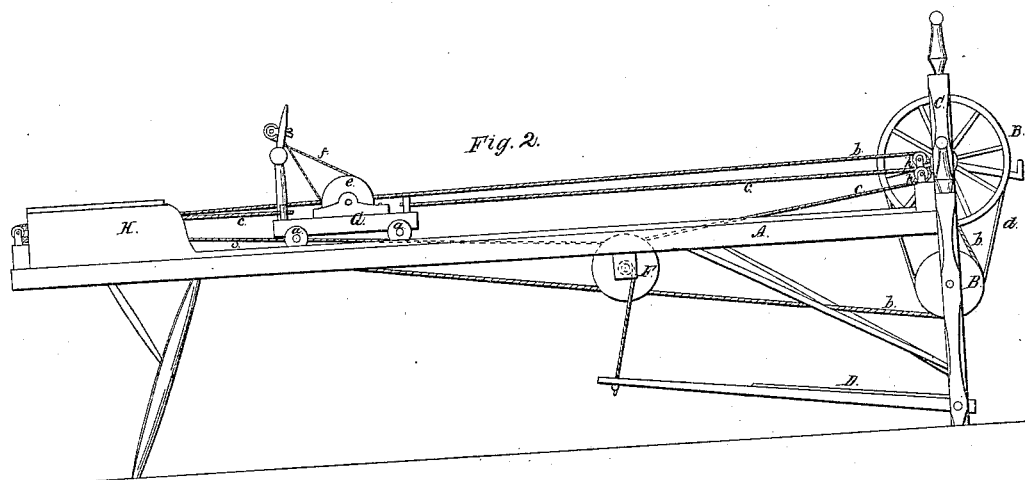
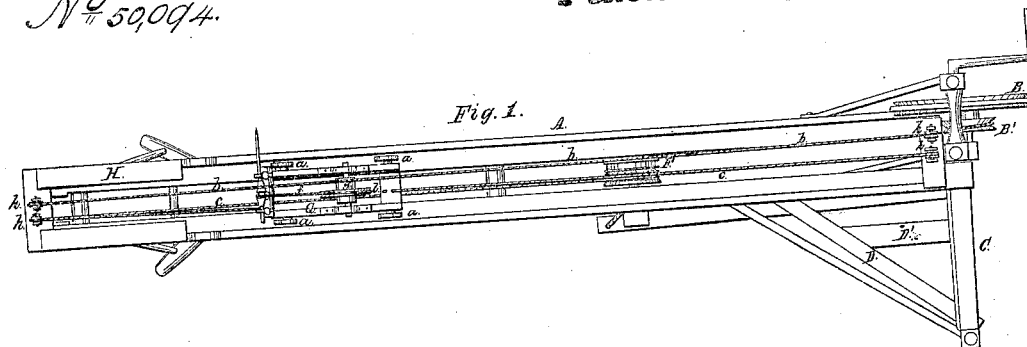


J. Byrkit.
Domestic Spinning Mach.
Patented Sept. 26, 1865.
No. 59094.



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Thos. Lusch

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UNITED STATES PATENT OFFICE.

JESSE BYRKIT, OF FAIRFIELD, IOWA.

IMPROVEMENT IN HAND SPINNING-MACHINES.

Specification forming part of Letters Patent No. 50,094, dated September 26, 1865.

To all whom it may concern:

Be it known that I, JESSE BYRKIT, of Fairfield, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Hand Spinning-Machines; and I do hereby declare that the following is 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 drawings, forming part of this specification, in which—

Figure 1 is a plan view of a hand spinning-machine which embraces my invention. Fig. 2 is a side elevation thereof. Fig. 3 is an end view.

Similar letters of reference indicate like parts.

This invention has for its object the improvement of hand spinning-machines in which the spindle is mounted on a carriage that travels to and fro on the frame.

It consists, among other things, in shortening the bench, changing the position of a portion of the gearing, placing the treadle so that it is operated from the end of the frame instead of from the side, forming a box to receive the carriage, &c.

A designates the bench of a railway hand spinning-machine, having an open bottom, and properly supported at a suitable height above the ground or floor.

G is the traveling carriage that carries the spindle. This carriage is provided with metallic wheels, which run on a track formed on ways on the top of the bench. The spindle is driven by a band, *f*, from the wheel *e*, whose shaft has a smaller pulley, which is driven by the band *b*, the said band being made to go entirely around the said smaller pulley.

C is a frame built up at the end of the bench for the purpose of supporting the treadle D and the driving-gear wheels B B'.

The ordinary hand spinning-machines of this kind have their main driving pulleys or wheels placed within the ends of the bench and the driving-band running directly from its periphery to the operative parts of the machine, thereby occupying space which is needed for the movements of the carriage, and consequently shortening its traverse, or else requiring the bench to be made longer by the amount of space taken by the wheels. They

have also the treadle in such a position as to be within reach of the spinner, who is required to sit at the right-hand side, (observing Fig. 3,) with one hand back to the crank and the other forward to the spindle, which, as above stated, can run no farther back than the pulleys. In consequence of this construction the present machines are required to be about ten feet in length.

In constructing machines of this class according to my invention, I make the bench about two feet shorter, and form at the end where the power is applied a frame, C, which sustains the driving-pulleys and also the treadle, enabling me, among other things, to set the treadle in the direction of the length of the machine on the left-hand side. The treadle is provided with a foot-board, which is reached with the foot from behind the frame, the end of the treadle being connected to the pulley F by means of a cord in the usual manner.

Spinning-machines of this class as heretofore made have the wheel at the side where the spinner works; but I provide double pulleys B B' on the right-hand side of the bench, the latter one being placed low in the frame and beneath the track of the carriage, and being driven from the upper one, B, by a band, *d*.

The power to drive the machine is applied to the shaft of the upper pulley, B, by means of a crank or other suitable device. The carriage G is moved in and out by means of the band *e*, whose ends are attached to the ends of the carriage, the band being taken over sheaves *h* at opposite ends of the bench and around the pulley F. When the pulley F is rotated by the motion of the treadle the carriage is caused to move on the bench. The rotation of the pulley *e*, which drives the spindle, is effected by means of the band *b*, which is passed around the smaller pulley *g* on the shaft of pulley *e*, and thence over sheaves *h* at opposite ends of the bench, and around the driving-pulley B'. At the outer end of the bench I make a box, H, within which the carriage and spindle are received at the limit of their outward traverse, and within which they are protected from injury by accident and from handling when the machine is at rest.

By means of my invention the spinner is enabled to sit in a straightforward position at

the back end of the wheel, and yet have easy access to the treadle through the left-hand side of the frame C, and also to the wheel.

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

1. In hand spinning-machines, placing the main driving-wheel outside the frame and the intermediate wheel, B', beneath the bed of the frame, so that neither wheel shall interfere with the run of the carriage up to the driving end, substantially as shown, thereby enabling me to shorten the bench and to run the carriage to the driving end.

2. In hand spinning-machines, so placing the driving or crank wheel and the treadle, for running the carriage in and out, that the spinner can sit behind the end of the machine while at work, substantially as described.

3. In hand spinning-machines, providing a box at the outer end of the bench to receive the carriage, substantially as described.

JESSE BYRKIT.

Witnesses:

GEO. H. CASE,
JOHN R. GRIFFITH.