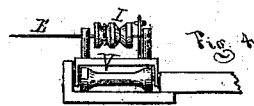
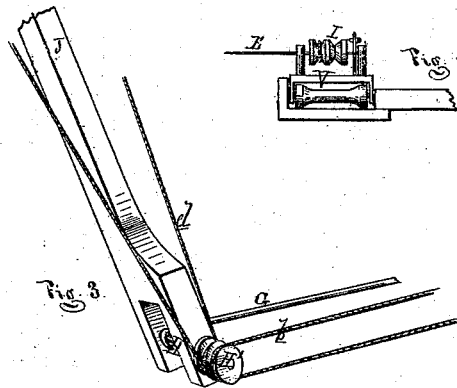
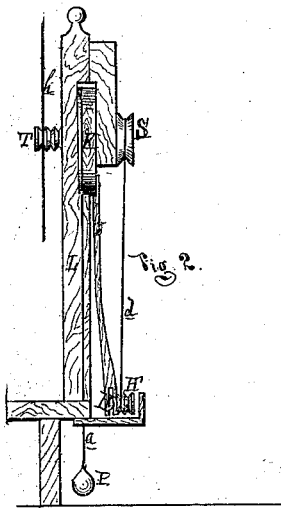
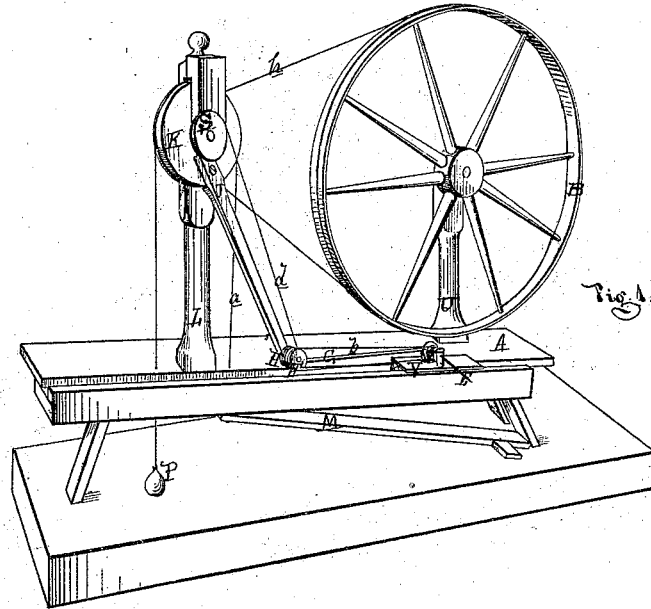


J. Strain,
Domestic Spinner.
No. 113,594. Patented Apr. 11, 1877.



ATTEST
A. F. Dunlop
N. Stewart

INVENTOR
J. Strain
per Atty
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United States Patent Office.

JOSEPH STRAIN, OF ARTEMESIA, CANADA.

Letters Patent No. 113,594, dated April 11, 1871.

IMPROVEMENT IN SPINNING-WHEELS.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, JOSEPH STRAIN, of Artemesia, in the county of Grey and Dominion of Canada, have invented a new and useful Improvement in Spinning-Wheels; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is an elevation in perspective.

Figure 2, a front view of the post and pulleys.

Figure 3, a section, showing the joint of the arms.

Figure 4, a plan of the carriage and wheel-head; or it might more properly be termed an end elevation.

Like letters refer to like parts in each figure.

The nature of this invention relates to an improvement in the construction of hand spinning-wheels, so arranged that the spinner may sit at her work and not be obliged, as in wheels of ordinary construction, when a portion of thread has been spun, to walk toward the head for the purpose of winding the thread upon the spindle.

The invention consists in the combination of its operative parts, all constructed and arranged substantially as more fully hereinafter described.

In the accompanying drawing—

A represents a bench supporting an ordinary spinning-wheel, B, upon a post, U, placed near the right-hand end of the bench.

Another post, L, is also secured to said bench near its opposite end, which post is to support the pulleys or gears for carrying and turning the carriage and spindle.

A grooved wheel, K, is attached to the side of this post for the purpose of working the arms which carry the spindle, and to this wheel is rigidly secured the arm J, which I call the upper arm.

Pivoted to the outer end of this arm J, by means of the joint H, is another arm, G, at the opposite extremity of which is the spindle E, which is operated by the head I of the usual construction, said head being rigidly secured to the small carriage V, upon which the head and spindle are carried backward and forward along the front of the bench by the action of

the arms J and G and wheel K, which receives its motion from a band or cord, *a*, which passes over it.

One end of this cord *a* is secured to the treadle M, which is placed under the bench and convenient to the operator, and thence the cord, passing up over the grooved wheel K, has secured to its opposite end the weight P.

The length of the cord is so adjusted that on pressing down the treadle the wheel K is rotated so far as to carry the upper arm J to the left and upward to an extent sufficient to carry the fore arm G, and with it the carriage and spindle E, to the left end of the bench, when, on removing the pressure from the treadle, the weight rotates the wheel K in the opposite direction so far as to carry the upper arm J downward and to the right, extending the fore-arm G and driving the carriage and spindle to the right as far as the length of both arms of the device will allow.

The carriage V may be guided in its travel along the top of the bench by a groove therein, or in any other convenient manner.

The spindle is of the ordinary construction, and is rotated by a band or cord, *b*, which receives motion from a pulley, H', located at the joint of the arms.

This pulley receives motion through a band or cord, *d*, passing over a wheel, S, rotating upon a spindle or short shaft in front of the wheel K, said shaft passing through the center of said wheel K, through the post L, where it has secured to it a small pulley, T, to which motion is given by the band or cord *h* from the large wheel B.

The operation has been so fully explained in the foregoing specification that a further description thereof is deemed unnecessary.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the wheels B K, standard L, pulleys S, H', and H, pitman J, connecting-rod G, head I, spindle E, treadle M, and cords *a b d*, all constructed and arranged substantially as described and shown, for the purposes set forth.

Witnesses:

M. STEWART,
GEO. CLARK.

JOSEPH STRAIN.