J. Shaw.

Domestic Spinning.

No. 5,847. Patented Oct. 10, 1848.

Fig. 3.

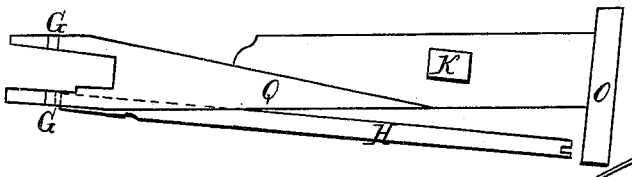


Fig. 1.

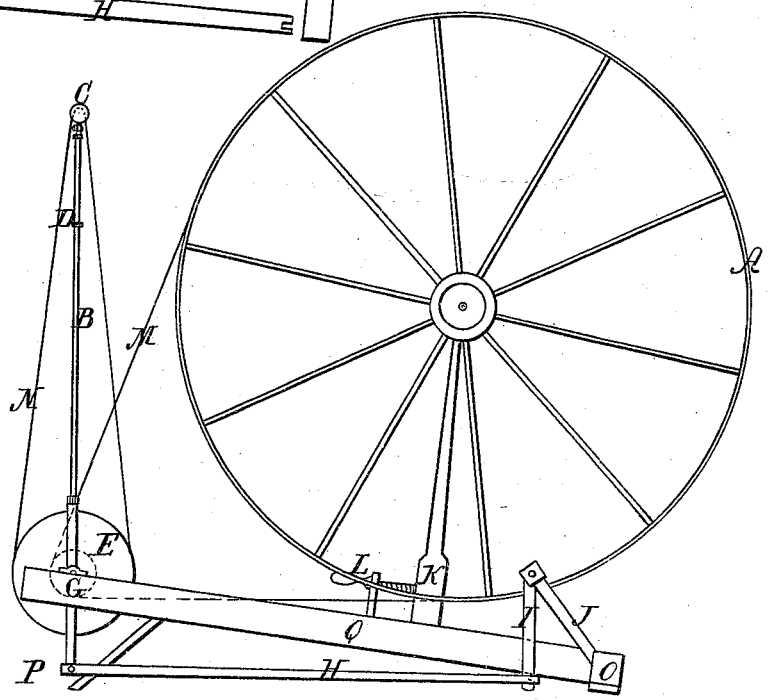
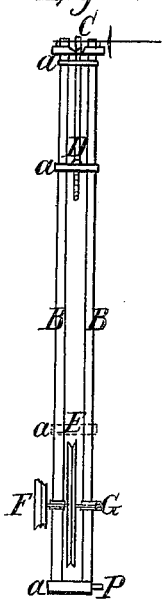


Fig. 2.



UNITED STATES PATENT OFFICE.

JACOB SHAW, JR., OF HINCKLEY, OHIO.

WHEEL FOR SPINNING.

Specification of Letters Patent No. 5,847, dated October 10, 1848.

To all whom it may concern:

Be it known that I, JACOB SHAW, Jr., of the township of Hinckley, in the county of Medina and State of Ohio, have invented certain new and useful Improvements in Spinning-Wheels; and I do hereby declare that the following is a full, clear, and exact description of the construction and manner of using the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, represents a longitudinal elevation of the machine as seen by a person standing in front of it. Fig. 2 represents a section or part called the vibrating frame as it appears to a person facing the end opposite the main wheel, Fig. 3, represents the bench as seen by a person looking downward upon it.

A, Fig. 1, represents the main wheel, it is made in all respects like, and is united, by means of an axle, with a standard in the same manner as the main wheel of the common spinning wheel.

B, wherever it occurs, represents a post of the vibrating frame.

Each *a* represents a cross bar through which near each end a hole is made of proper dimensions to allow those parts of the posts above the accelerating wheel to pass through. One cross bar is placed on the two posts immediately above the accelerating wheel; another at a distance from the upper end of the frame equal to about one fifth the length of the posts; a third at such a distance from the top as will allow the cross bar of the head, to which the spindle is attached, to slide up and down on the posts so far as is necessary to regulate the tightness of the accelerating band, and a fourth is attached by means of tenons, on the lower ends of the posts, confined in the holes near each of its ends. The cross bar on the lower end is made of metal in order to balance the upper part of the frame.

Each C represents the head, which is composed of a cross bar having two holes of proper dimensions and in proper position to allow it to slide easily up and down on the posts, and also, having firmly attached to its middle, a rod which passes down through the two upper cross bars of the vibrating frame and has a screw on its lower end on which a nut, resting on the upper side of the second cross bar of the frame, is fitted and, the turning of the nut regulates the tension of the accelerating band. The rod, screw and nut are represented at D. Fig. 2.

A spindle attached on the top of the cross bar of the head, in a manner similar to that in which the spindle of a common wheel head is attached, having a whurr and collar on it, completes that part of the apparatus called the head.

A slot is cut in the top of each post so that the spindle will pass between its sides and not interfere with either.

Each E, represents the accelerating wheel, over which and the whurr on the spindle, the accelerating band passes.

F, represents the large whurr on the end of the shaft of the accelerating wheel. Two hollow rods are firmly fixed, one in one post and the other in the other post one end of each of which projects outwardly so far that, when the vibrating frame is placed in the slot which is cut in the end of the bench, the two hollow rods, forming the axis or fulcrum of the frame, will rest in the cavities G, G, Fig. 3, cut into the top of the bench and allow of its vibrating backward and forward when the wheel is in use. One end of the axis of the vibrating frame is represented at G Figs. 1 and 2. One end of the axle on which the accelerating wheel is confined, passes through one part of the axis of the frame and projects sufficiently beyond the backside of the bench to allow the large whurr to be confined on it, the other end of the axle passes into the other part of the axis of the frame, and the two parts of the axis of the frame are the bearings or boxes which support, and confine the axle of the accelerating wheel in its place and allow of its revolving freely therein, the axle of the accelerating wheel, and the axis or fulcrum of the vibrating frame being concentric. H represents a treaddle having a hole made through it near one end through which the wrist P projecting from the front end of the lower cross bar passes, and the treadle is secured in its place by a pin passing through the wrist outside of the treadle. I represents a connecting rod, which is placed in a slot in the treadle, a pin passing through that part of the treadle outside of the solt, then through the connecting rod into the treadle on the back side of the slot, the other end of the connecting rod is placed between two posts (one of which is seen at J Fig. 1,) through the up-

per ends of which, and the other end of the connecting rod, a pin passes similarly to that described as passing through the treadle and connecting rod.

K, Fig. 1 represents the standard which supports the main wheel, and K Fig. 2 the mortise in which the standard is confined by a pin passing through the bench and lower end of the standard. L represents a screw, working in a stud in the bench, by means of which, operating on the standard, the main band is kept sufficiently tense to operate the machine. The stud in which the screw works, is attached to the bench by means of a round tenon passing through it, so that the stud may be turned around, removing by that means the screw from its contact with the standard, allowing the standard to be inclined forward so that when the machine is not in use, it will occupy less space.

M represents the main band passing around the main wheel and the large whirl. N the accelerating band passing around the accelerating wheel and the small whirl on the spindle.

O, represents a sill attached to and supporting the hindermost part of the bench, the treadle posts J, are firmly attached to that part of it which projects beyond the front side of the bench, laps are placed over the ends of the axis of the vibrating frame and fastened to the bench to secure the frame in its place as seen at G Fig. 1.

Q, represents the bench, it is reduced in width and thickness on the backside, at a proper distance from the end, to allow the main band to pass over the main wheel and large whirl, and not interfere with the bench. A leg, that supports the forward end of the bench, is seen near P Fig. 1. All the parts being adjusted in their places as represented in Fig. 1, it is obvious that, if a person sitting by the machine, should apply one foot to the treadle and press it downward and forward, the upper end of the vibrating frame would be moved toward the operator, inside of the main wheel, if then, a substance proper for spinning, should be properly applied to the spindle, and at the same time the main wheel should be turned, thereby setting the accelerating wheel and spindle in motion, and the motion of the foot be reversed, the motion of the vibrating frame would be reversed, and a thread would be drawn out, which then might be twisted as much as might be required, by turning the wheel when the return of the top of the vibrating frame, and the motion of the main wheel properly continued would wind it on the spindle.

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

1. The construction and the combination of the vibrating frame with the accelerating wheel and bench, by means of two hollow rods constituting an axis for the vibrating frame, and boxes or bearings for the axle of the accelerating wheel, in such a manner that the motion of the vibrating frame and the motion of the accelerating wheel will be concentric, and the main and accelerating bands retain the same degree of tension, in whatever position the vibrating frame may be placed or whether in motion or at rest.

2. The combination of the treadle with the vibrating frame and the bench, and the combination of the parts comprising the axis of the vibrating frame with the frame.

3. And I claim each part and combination hereinbefore claimed which has not been before known and used whether the same is used separately or in combination with other parts herein claimed or with parts of spinning wheels which have been before known and used or with parts which are not now known, but may be hereafter known and used.

JACOB SHAW, Jr.

Witnesses:
JOHN BRAINERD.
H. T. CRAIG.