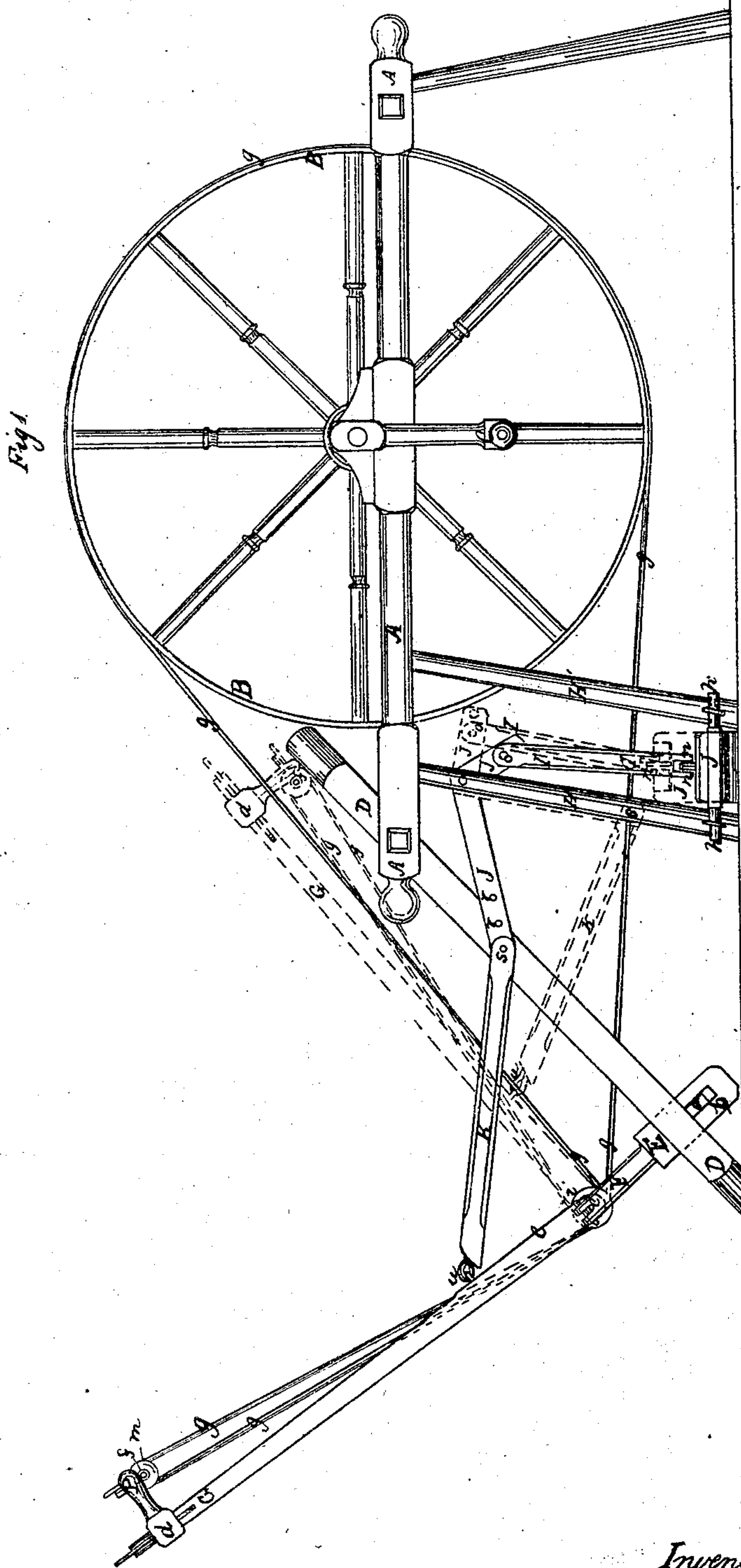


H. Miller.

Spinning-Wheel.

N^o 71897

Patented Dec. 10, 1867.



Witnesses
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Chas. C. Wilson

Inventor
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HENRY MILLER, OF RONALD TOWNSHIP, MICHIGAN.

Letters Patent No. 71,897, dated December 10, 1867.

IMPROVEMENT IN SPINNING-WHEEL.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, HENRY MILLER, of Ronald, in the county of Ionia, and State of Michigan, have invented certain new and useful Improvements in Spinning-Wheels; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, and which represent a side view of the spinning-wheel complete, and its parts in two different positions, by black and red lines, said drawing being marked Figure 1.

My invention consists in the manner in which I have combined and arranged the several operating parts of the spinning-wheel with a foot-treadle, so that the operator can readily, with the foot, throw the spindle or bobbin from or draw it towards his or her position, as will be explained.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents a frame upon which the main driving-wheel B is hung, which driving-wheel is operated by a crank, C, or any other equally well-known appliance. To the front of the main frame there is secured the upper end of a foot or brace, D, the lower end of which, projecting and inclining forward some distance from the main frame, rests upon the floor. Near the lower end of this foot or brace D, and in a slot made therein, so that it can be adjusted, is a cross-head, E, having standards or bearing-blocks F attached; and the cross-head, when adjusted, may be held firmly by a key, *a*, driven through its tenon *b*, which passes through the slot in the brace or foot, or by any other adjustive mechanism. Near the tops of the standards or bearers is pivoted the spindle or bobbin-arm G, as at *c*; and on the top of this spindle-arm, in a cross-head, *d*, are arranged bearers *e* in which the spindle *f* is caused to run. A driving-band or cord, *g*, extends over and around the main drive-wheel B, and may pass under and partially around a pulley, *i*, arranged at or in line with the joint *c* where the spindle-arm G is pivoted, and thence may pass around the pulley *m* on the spindle *f*, for the purpose of driving said spindle; or, which would be probably a better method of driving, the main belt may only go around the main wheel and the pulley *i*; and from the pulley *i* to the pulley *m* on the spindle, a second belt or driving-band or cord may pass, to give motion to said spindle. In this latter case, a pulley with a series of grooves of different diameters may be used, so that more or less speed may be given to the spindle, as may be required. To the supports H H' (for convenience) is pivoted, by its journals *h h*, a foot-treadle, *j*, which projects about equal distances on each side of said journals or supports, and so that it may rock both ways, or front and rear. To the forward end of this foot-treadle *j*, as at *n*, there is pivoted the lower end of a pitman or connecting-rod, I, and the upper end of this pitman is connected, at *o*, to the short arm of a bell-crank lever, J, which is pivoted to the supports H (and its mate or fellow behind it, and not seen in the drawing,) at *p*. The long arm of the right-angled (or nearly so) lever J is furnished with a series of adjusting-holes, *r*, into one of which a pin, *s*, passes, which attaches to said lever a second pitman or connecting-rod, K, the forward end of which is hinged, as at *u*, to the spindle-arm G.

When the treadle *j* is pressed down at its front end, or the end where the toe part of the foot rests, the several parts connected with and operated by it will be in the positions shown by the black lines; and when the after or heel portion of the treadle is pressed down, then the several parts connected with and operated by the treadle will be in the positions shown by the red lines. The object in moving the spindle or bobbin from and towards the operator is, first, to draw out the roving or roll of wool into the form of thread or yarn, and when it is sufficiently twisted by the running of the spindle, then the spindle is brought towards the operator to allow the yarn to wind up on the spindle or bobbin, and so on. The belts, whether single or double ones, having the centre of their pulley *i* in the same line with the pivot *c* of the spindle-arm, do not become slack by the moving of said arm, the central points of the pulleys and main wheel being always equidistant from each other in the line of the belt or driving-cord.

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

The arrangement of the adjustable and hinged rods and levers, constructed as herein described, for connecting the rocking-treadle with the hinged spindle-arm, so that the operator, by the foot, may move the spindle-arm out or in at pleasure, as set forth and represented.

HENRY MILLER.

Witnesses:

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