# J. M. Flood.

## Domestic Spinning Mach.

No. 51,532. Patented Dec. 12, 1865.

Fig. 1.

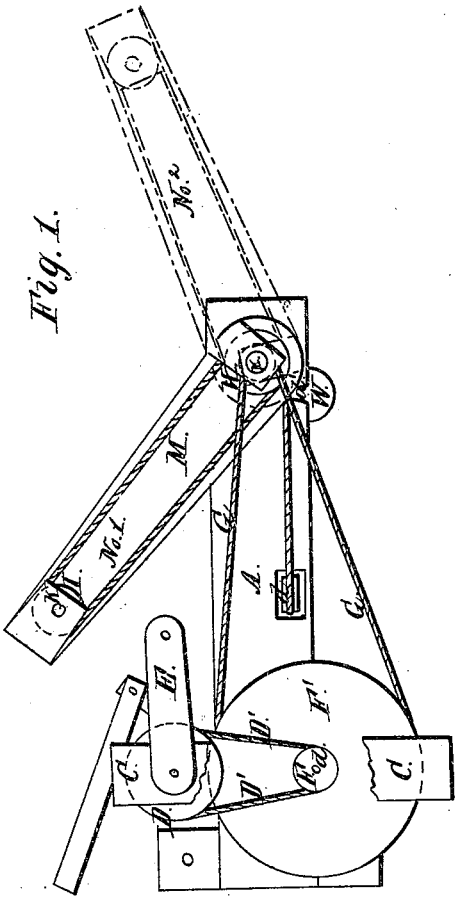
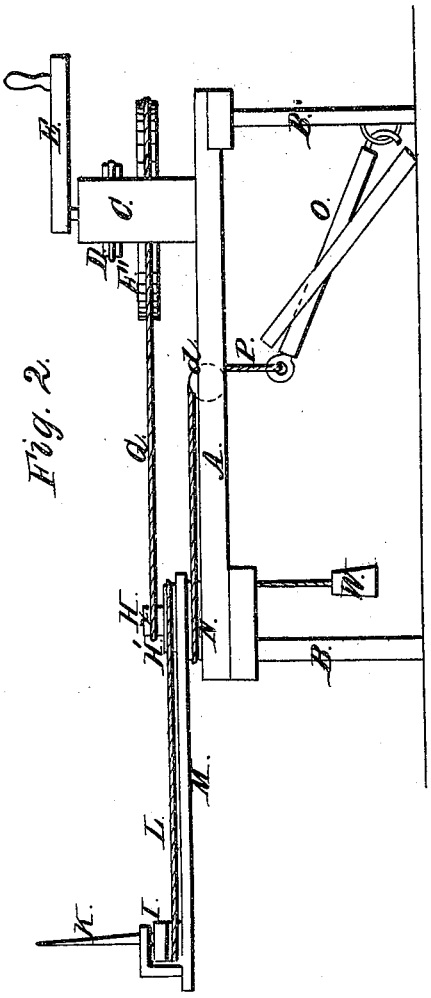



Fig. 2.




Witnesses.

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# UNITED STATES PATENT OFFICE.

J. M. FLOOD, OF FULTON, MISSOURI.

## IMPROVEMENT IN SPINNING-WHEELS.

Specification forming part of Letters Patent No. **51,532**, dated December 12, 1865.

*To all whom it may concern:*

Be it known that I, J. M. FLOOD, of the city of Fulton, in the county of Callaway and State of Missouri, have invented a new and useful Improvement in Spinning-Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon and made to form part of this specification.

Of the annexed drawings, Figure 1 is a plan of the improved wheel, and Fig. 2 is a side elevation of the same.

The nature of this invention consists in gearing the spindle up to the required speed by a series of wheels and belts, the said spindle being erected on the outer end of a movable arm, which is actuated in opposite directions alternately by a treadle and a weight attached to opposite ends of a cord, which, between these two points of attachment, passes around a wheel on the journal, which connects the swinging arm to the bench, which supports the whole, so that the operator, by placing his foot upon the treadle, will cause the spindle-arm to recede from him so as to lengthen out the thread while being spun, which being completed, the weight on the other end of the cord will cause the arm to swing back to its former position automatically, at the same time winding the thread upon the bobbin on the spindle.

To enable those skilled in the art to make and use my improved wheel, I will proceed to describe its construction and operation.

I construct the frame or bench A supported on the legs B. Across the top of this frame, and near its back end, is secured the frame C, a portion of the top of which is broken out in Fig. 1 to disclose the wheels and driving-belt. The frame C consists of a sill and a cap-piece connected together by means of a post on either end. Within this frame is the horizontal belt-wheel D, which is secured to an upright shaft, the upper end of which terminates in the crank E. The wheel D is connected with the small counter-pulley F on the counter-shaft *a* by means of the belt D′. The counter-shaft *a* has its bearings in the upper and lower pieces of the frame C; and, besides the counter-pulley F on it, there is another and larger wheel, F′, by means of which and the belt G on it an increased motion is transmitted to the counter-pulley H on the journal *x*, which carries besides it the larger pulley H′, which again, in turn, transmits motion to the wheel I on the spindle K through the medium of the belt L.

The swinging arm M, on the outer end of which is the spindle, is pivoted to the bench A by means of the vertical shaft *x*, which serves the combined purpose of journal for the wheels H, H′, and N and the pivot on which the said arm swings back and forth.

It will be observed that the wheels H and H′ are to be fastened together, and that the wheel N will be fastened to the swinging arm as the backward-and-forward motion of said arm is transmitted to it through the medium of this wheel, as hereinafter described.

The treadle O is hinged to the inner side of the back legs of the bench near their lower end, the whole being so arranged that a person sitting by the side of the bench in a convenient position to turn the crank E can readily place the foot on the treadle. The cord P, attached to one end of the treadle, will pass thence upward around the wheel *d*, which is placed in the upper face of the bench, thence over the top of the bench and around the wheel N, and finally terminate in its attachment to the weight W.

The operation of these arrangements is as follows: The operator, sitting by the side of the machine, can easily turn the crank E a few times with one hand, when the inertia of the machine will cause it to turn for some seconds without assistance. The various wheels and belts already described will transmit an accelerated motion to the spindle K, as already described. Then, as the thread becomes twisted by the action of the spindle, and it becomes necessary to increase the distance between the spindle and the operator, all that it will be necessary to do will be to press with the foot on the treadle and the action of the cord drawing around the wheel N will cause the arm to swing off from the operator. When the foot is raised off the treadle the action of the weight W will cause the arm to swing back to its original or first position. The two positions of the arm M are indicated in the drawings as No. 1 and No. 2. When the spindle swings back to No. 1 the spun thread will be wound up on the brooch.

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

1. The arm M, pivoted to the bench A at *x*, in combination with the treadle O, the belt or cord P, the wheels N, *d*, and *d'*, and weight W, the whole constructed, arranged, and operated as described and set forth.

2. The crank E, the wheels D, F, F', H, H', and I, the belts D', G, and L, and the spindle K, when combined and arranged as and for the purpose set forth.

J. M. FLOOD.

Witnesses:
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