J. Blayney.

Domestic Spinning Mach.

No. 54,493. Patented May 8, 1866.

Fig. 1.

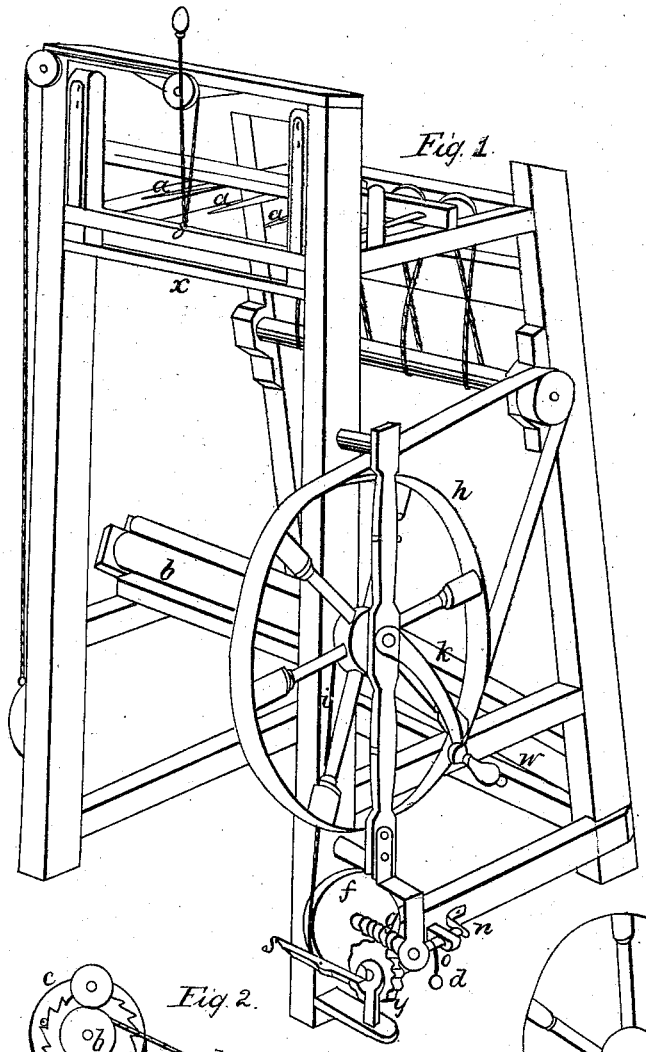


Fig. 2.

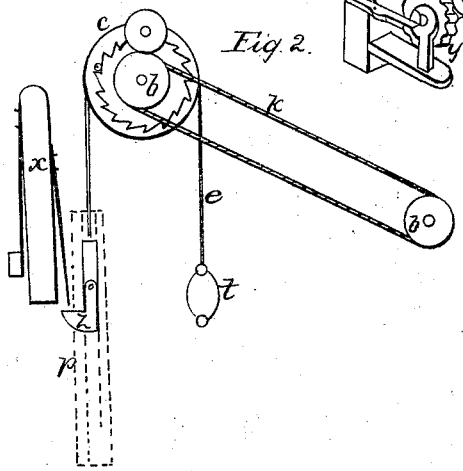
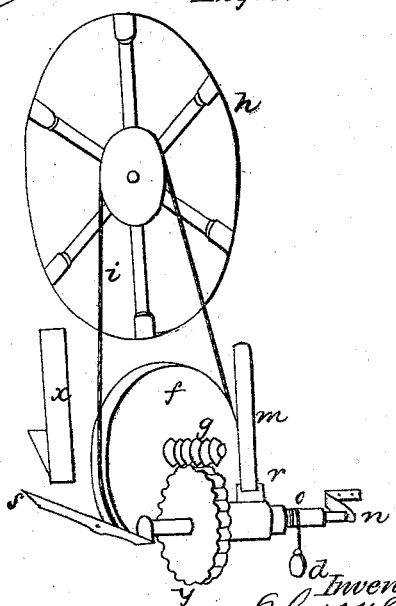


Fig. 3.



Witnesses,
Wm. Blayney
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Inventor
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UNITED STATES PATENT OFFICE.

JAMES BLAYNEY, OF LOWELL, IOWA.

IMPROVEMENT IN VERTICAL HAND-SPINNING MACHINES.

Specification forming part of Letters Patent No. **54,493**, dated May 8, 1866.

To all whom it may concern:

Be it known that I, JAMES BLAYNEY, of Lowell, county of Henry, and State of Iowa, have invented a new and useful Improvement on the Vertical Spinner; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view, and Figs. 2 and 3 are views of some of the parts detached from the main portion of the machine.

The nature of my invention is, first, the application to the vertical spinner aforesaid of a feed-table, *k*, Figs. 1 and 2, on which the rolls which are to be spun can be spliced easier and more readily than heretofore, and which keeps the rolls from tangling; second, the application to the machine aforesaid of an apparatus, Fig. 3, for the purpose of enabling the operator to give each run or draw of the threads the same amount of twist.

To enable others to make and use my improvement, I will proceed to describe its construction and operation.

The construction of my feed-table, Fig. 2, and counting apparatus, Fig. 3, admits of their application to the vertical spinner when made in the usual manner. (See Fig. 1.)

The feed-table *k*, Figs. 1 and 2, is made of an endless apron (one edge of which can be seen at *w*, Fig. 1) passing around two rollers, *b b*, Figs. 1 and 2, so constructed as to bring forward the rolls at each descent of the clamp *x*, Figs. 1, 2, and 3, just sufficient to make the next run or draw of the threads. This apron is moved forward by a ratchet, *c*, Fig. 2, placed on one end of the roller *b*, Figs. 2 and 1. The clamp *x*, Figs. 1, 2, and 3, in descending comes in contact with the catch *z*, Fig. 2, which is attached to the ratchet *c*, Fig. 2, by means of the cord *e*, Fig. 2, thus drawing the apron forward an allotted distance when the catch *z*, Fig. 2, is thrown from its connection with the clamp *x*, Figs. 1, 2, 3, by the cross-tie at the bottom of the tube *p*, Fig. 2, in which the catch *z*, Fig. 2, works, after which the weight *t*, Fig. 2, draws it up to its former position, ready to engage with the clamp *x*, Figs. 1, 2, and 3, in its next downward motion.

The counting apparatus, Fig. 3, is made of a worm, *g*, Figs. 1 and 3, and worm-wheel *y*, Figs. 1 and 3. The worm-wheel is driven by a band, *i*, Figs. 1 and 3, passing from the nave of the main wheel *h*, Figs. 1 and 3, to a pulley on the worm-shaft *f*, Figs. 1 and 3. The worm-wheel *y*, Figs. 1 and 3, is placed on an axle, *o*, Figs. 1 and 3, which is free to move endwise. The clamp *x*, Figs. 1, 2, and 3, as it nears its destination in its descent, pushes out one end of the lever *s*, Figs. 1 and 3, the other end of which acts on the end of the axle *o*, Figs. 1 and 3, pushing the worm-wheel *y*, Figs. 1 and 3, in gear and holding it thus as long as the clamp *x*, Figs. 1, 2, 3, remains down. When the spindles *a a a*, Fig. 1, have gone a set number of revolutions the spring *m*, Fig. 3, which has been forced from its position by the rotary motion of the worm-wheel *y*, Figs. 1 and 3, slips from the end of the pin *r*, Fig. 3, with an audible crack. Immediately upon hearing this crack the operator runs up the clamp *x*, Figs. 1, 2, 3, and as soon as it leaves the end of the lever *s*, Figs. 1 and 3, the worm-wheel is thrown out of gear by a spring, *n*, Figs. 1, 3, acting on the opposite end of the axle *o*, Figs. 1, 2. Immediately upon being thrown out of gear the worm-wheel is drawn back to its former position by the weight *d*, Figs. 1 and 3, attached to a cord, which cord is wound up on the axle *o*, Figs. 1, 3, while the worm-wheel *y*, Figs. 1 and 3, is in gear.

All parts in Figs. 1, 2, and 3 not claimed in Figs. 2 and 3 are hereby disclaimed.

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

1. The application to the vertical spinner of all the apparatus delineated and shown in Fig. 2 of the accompanying drawings, except that part marked *x*, and called in this specification the "clamp."

2. The application to the above-named spinner of all the gearing shown and delineated in Fig. 3 of the accompanying drawings, except those parts marked *h* and *x*, and called in this specification the "main wheel" and the "clamp."

JAMES BLAYNEY.

Witnesses:
WM. BLAYNEY,
J. E. WOODHEAD.