Netherwood & Babcock.

Spinning Jack.

No 74714 Patented Feb. 18, 1868.

Fig. 1.

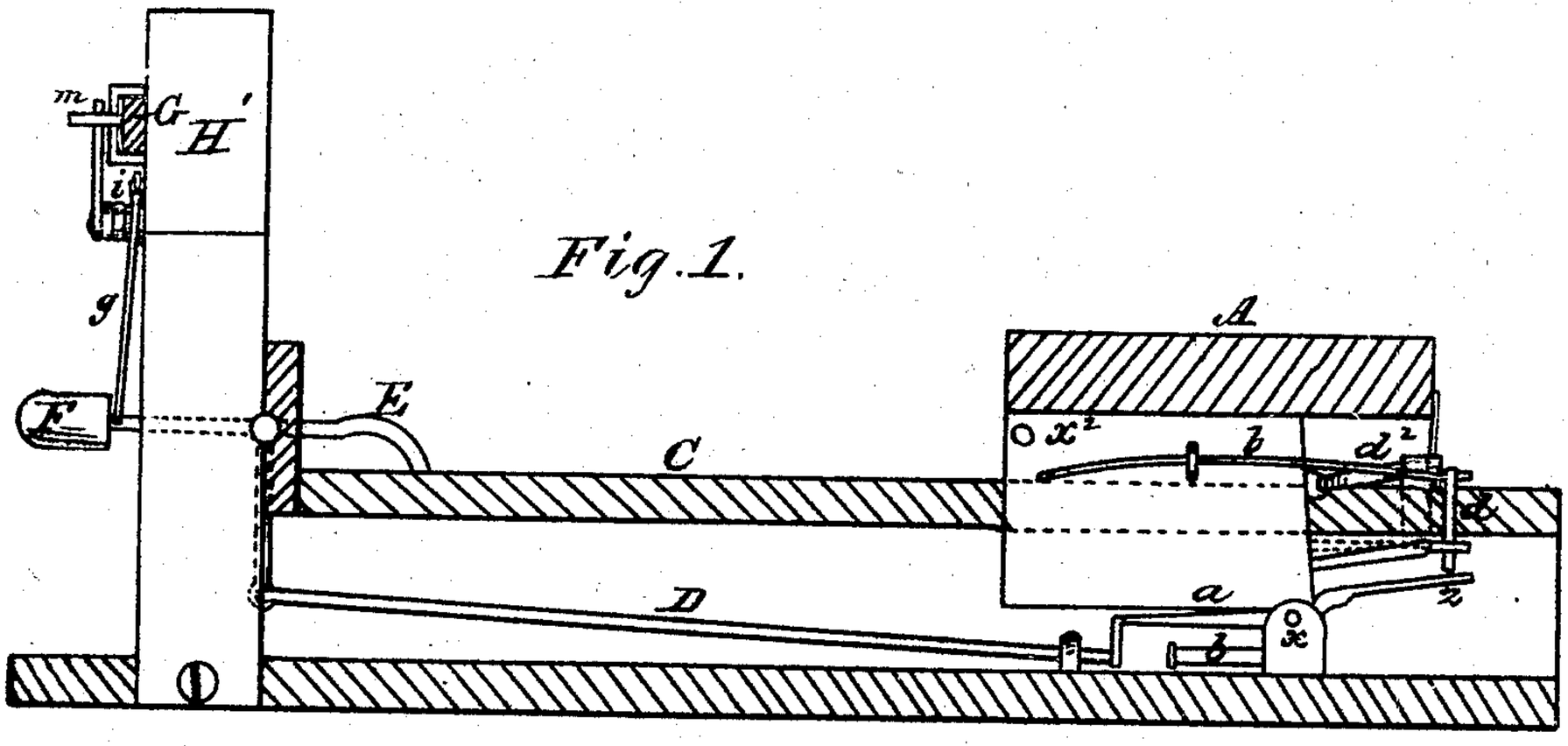


Fig. 2.

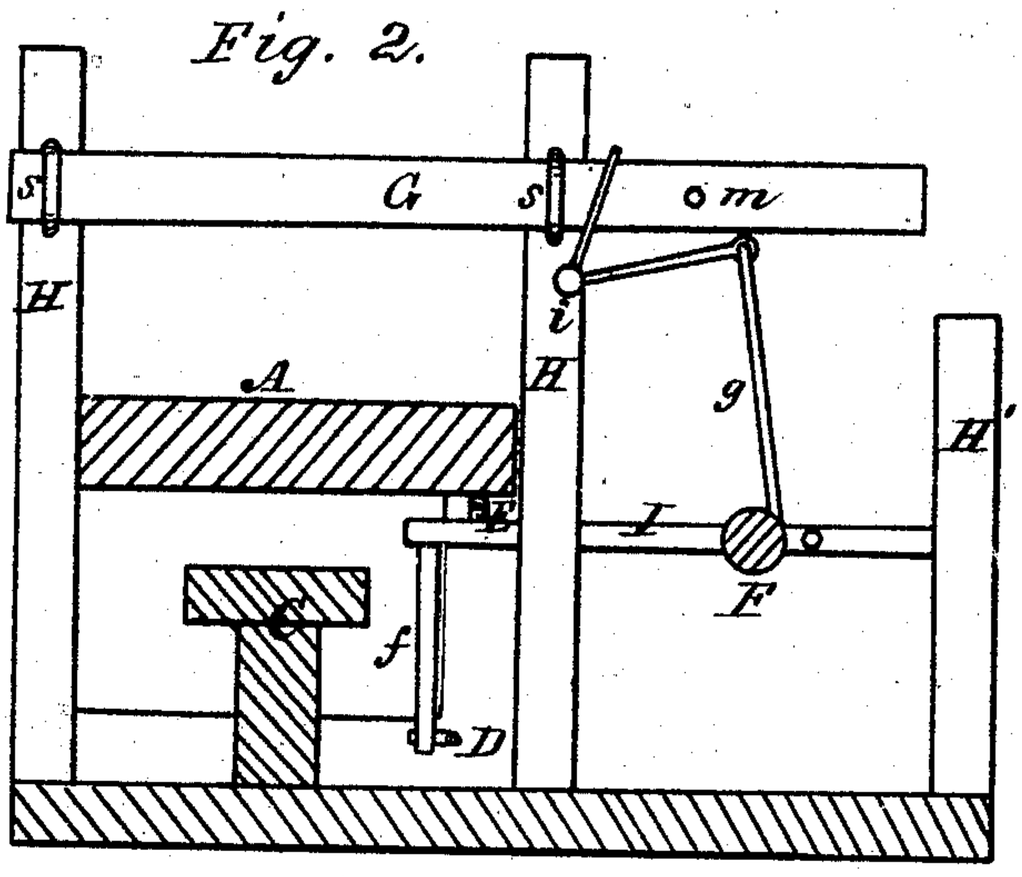
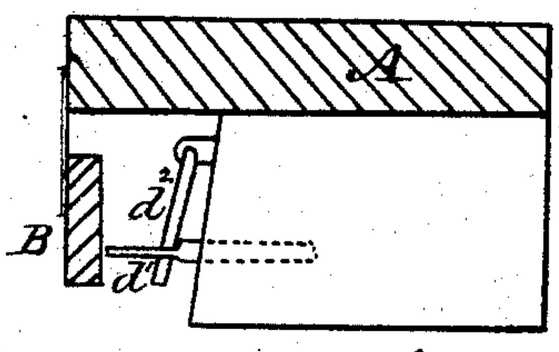


Fig. 3.



Witnesses

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THOMAS NETHERWOOD AND JOHN P. BABCOCK, OF WESTERLY, RHODE ISLAND.

Letters Patent No. 74,714, *dated February* 18, 1868; *antedated February* 7, 1868.

IMPROVEMENT IN SPINNING-JACKS.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that we, THOMAS NETHERWOOD and JOHN P. BABCOCK, of Westerly, in the county of Washington, and in the State of Rhode Island, have invented certain new and useful Improvements in Spinning-Jacks; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon, making a part of this specification.

Figure 1 represents a side view of the jack,

Figure 2 an end view of the same, and

Figure 3 a view of the jack-carriage and knee-board.

Our invention has for its objects the construction of a spinning-jack, to obviate the difficulties now attending the use of jacks, and effectually, and in a simple manner, to put the friction on to the driving-wheel of the jack, by sliding the belt partially upon it from the loose pulley, to assist the spinner in winding the yarn.

In the annexed drawings, A represents the carriage, which we construct of the usual form, and which is placed upon the way C. Upon the outer end of this carriage we place the knee-board B, by which said carriage is forced "home." H H H′ represent three standards, placed in the floor at the inner end of the way C, and upon which is secured the shipper-board G by means of the brackets *s s*. I represents a horizontal shaft, attached by means of suitable bearings to the standards H′ and H, and having a pendent arm, *f*, which is connected to and operates the horizontal rod D. Secured to this shaft, near its inner end, and extending outwards towards the rod D, is a curved cam, E, which operates said rod by means of the carriage A, as will be hereafter specified. Between the standards H′ and H, upon the shaft I, is a rod, having a weight, F, at its end, and to which rod is connected the vertical wire *g*, which is attached, at its upper end, to the rod *i*, which forms, of itself, a spring, and operates the shipper-board by means of its arm striking against the pin *m*. X represents an ear or bearing, placed upon the outer end of the floor, and between which is pivoted the tripper *a*, having a set-screw, *b*, beneath it. Upon the outer end of the carriage we place a rod, d^2, bent at three separate angles, and having a vertical pin connected to its inner end, which pin is directly above the outer end of the tripper when the carriage is out, as seen in the drawing. The outer end of this rod passes through a small sliding rod, d^1, which projects towards the knee-board, and which is intended to operate it. *b* represents a spring, secured horizontally on the inside of the carriage, passes through the inner end of rod d^2, and through the vertical pin, and the rod is by the spring restored to its normal condition, after being pressed down by the knee-board. The knee-board, herein shown, may be, and usually is, placed upon the inner side of the jack, instead of the outer, as herein shown.

It will be seen that, when the carriage is out, the weight F falls, and the rod D slides back against the tripper or latch *a*, for the purpose of putting on the friction. When the carriage A runs in, the pin x^2 strikes the end of the curved arm E, and, pressing it down, throws the strap on the usual loose pulley, at the same time moving the rod D forward, in which position it is held by the end of the latch *a* and weight F. When the carriage is at the highest part of the arm, it is still several inches out, and in the position which is required for piecing up the threads. When the carriage is run out, the descent of the rod, operated through the knee-board, causes the pin to bear on the outer end of the latch *a*, raising the inner end from contact with the rod D, and allowing it to fly back by reason of the pressure of the weight F, thereby moving the belt-shipper from the loose, partially on the fast pulley, and thus assisting the winding-on motion.

The weight F acts upon the shipper-board by means of the rods *g* and *i*, and readily throws the belt from the loose to the tight pulley, obviating the necessity of using a spring, which we find to be continually getting out of repair. Whenever it is necessary to place the belt farther on to the tight pulley, it is only necessary to shorten the set-screw *b*.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of the shaft I, with pendent arm *f* and curved cam E, weight F, rod *g*, and spring-rod *i*, for operating the shipper-board G, in the manner substantially as specified.

2. The arrangement of the rods d^1 d^2, pin *d*, and knee-board B, on the car A, in combination with the latch *a* and rod D, in the manner and for the purposes set forth.

In testimony that we claim the foregoing, we have hereunto set our hands, this 15th day of January, 1867.

THOMAS NETHERWOOD,
JOHN P. BABCOCK.

Witnesses:

BENJAMIN BROADBENT,
WM. TIMBURY.