

A. NIELSON.
TREADLE FOR SEWING MACHINES.

No. 109,835.

Patented Dec. 6, 1870.

Fig: 1.

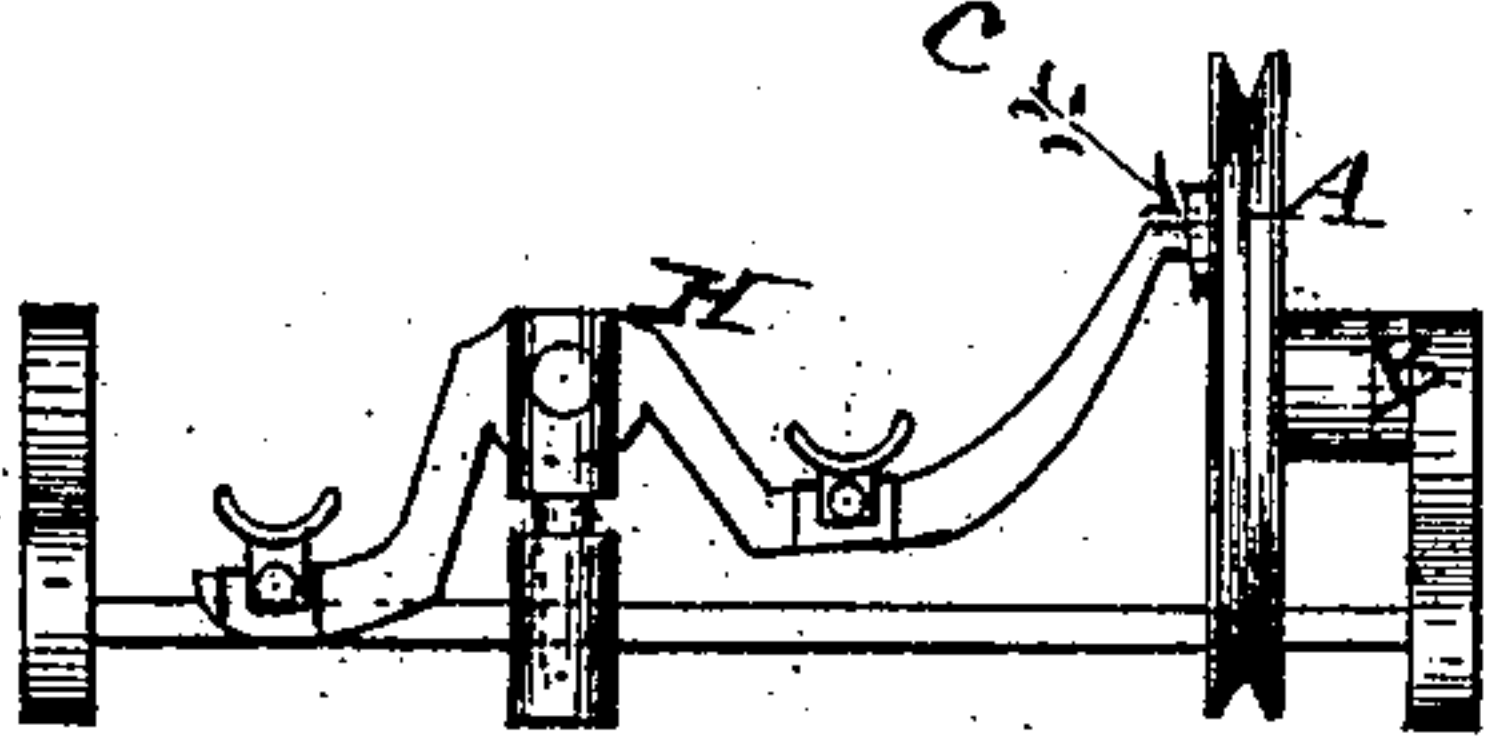


Fig: 2.

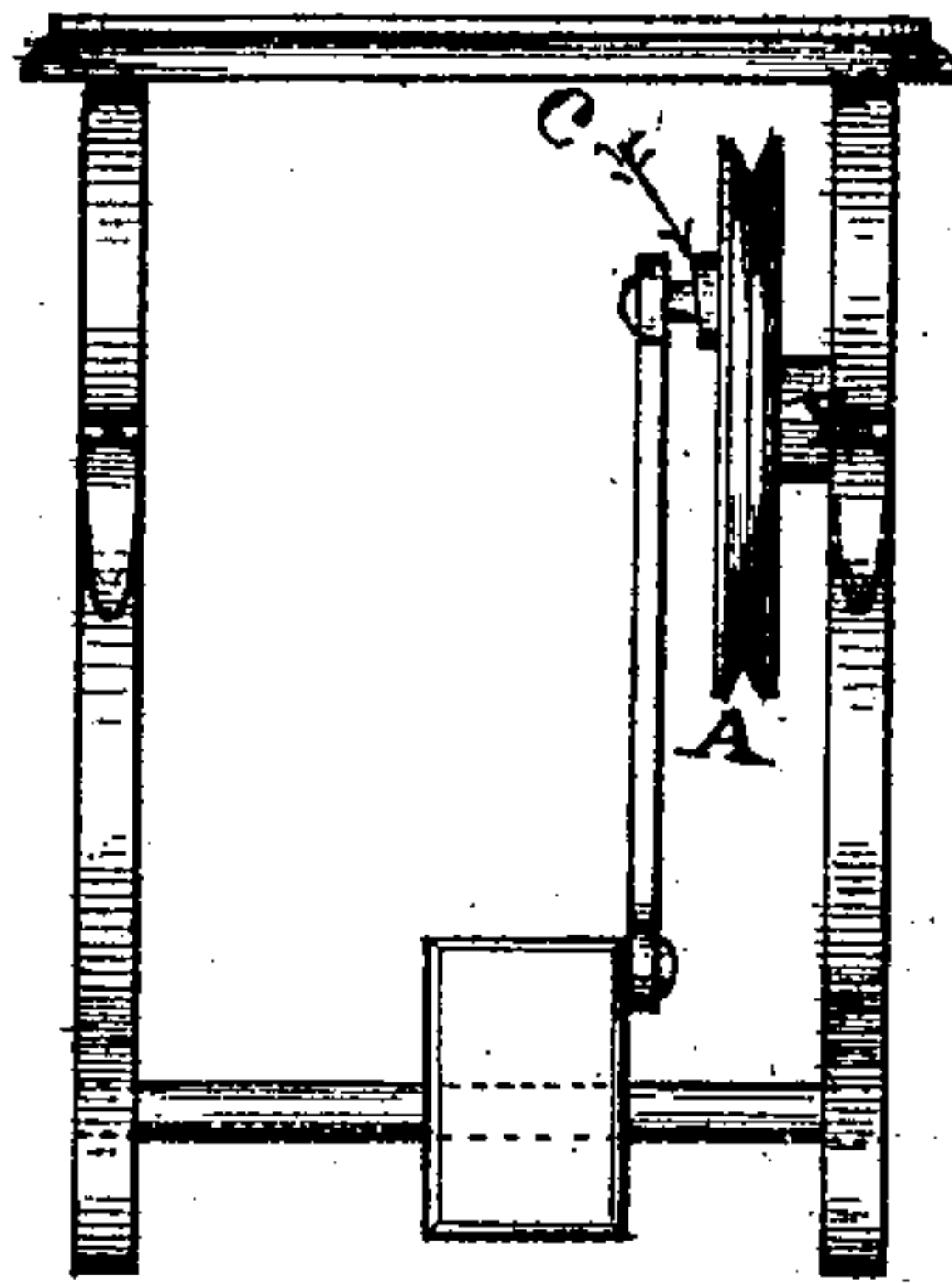


Fig: 3.

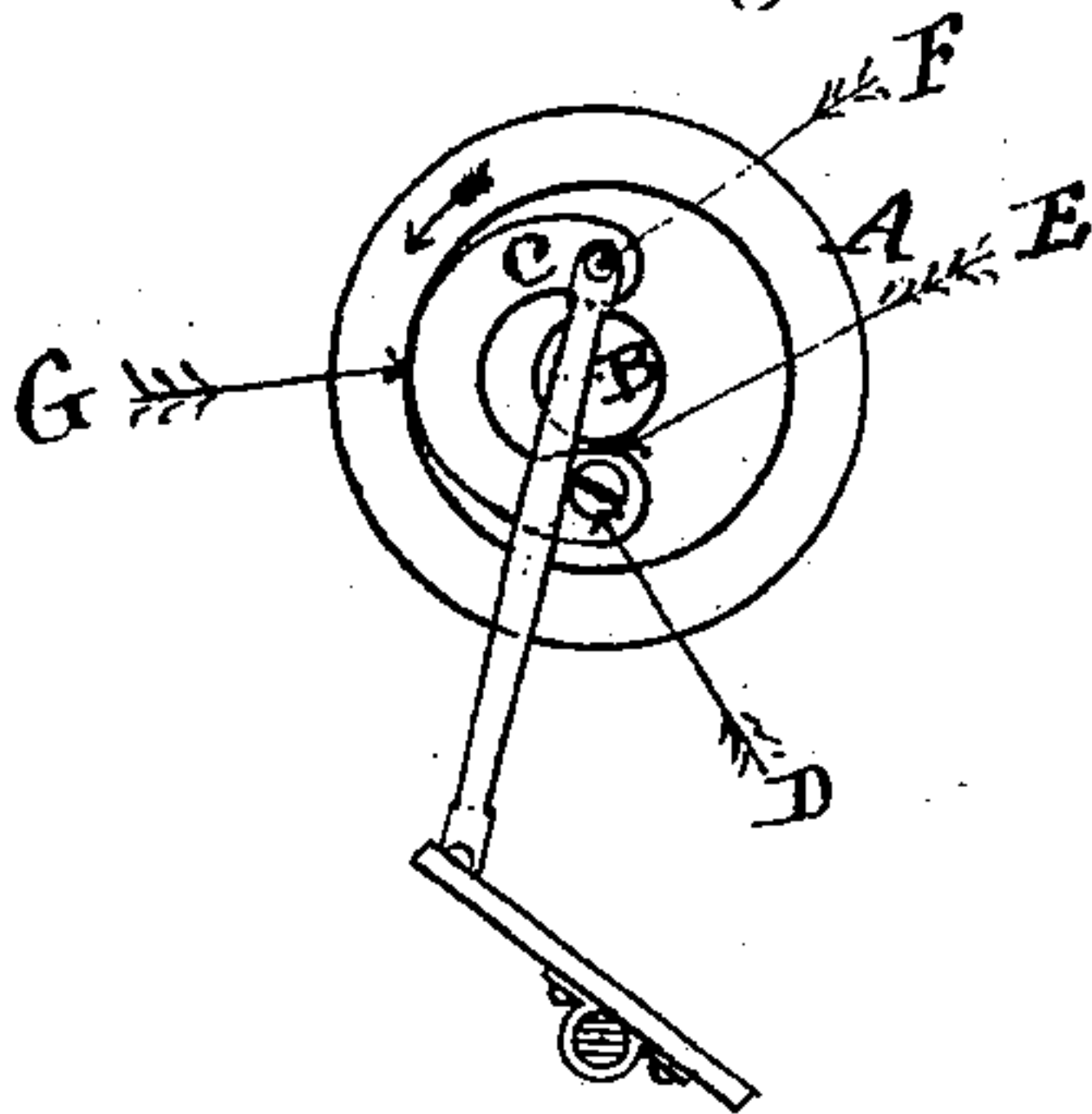


Fig: 4.

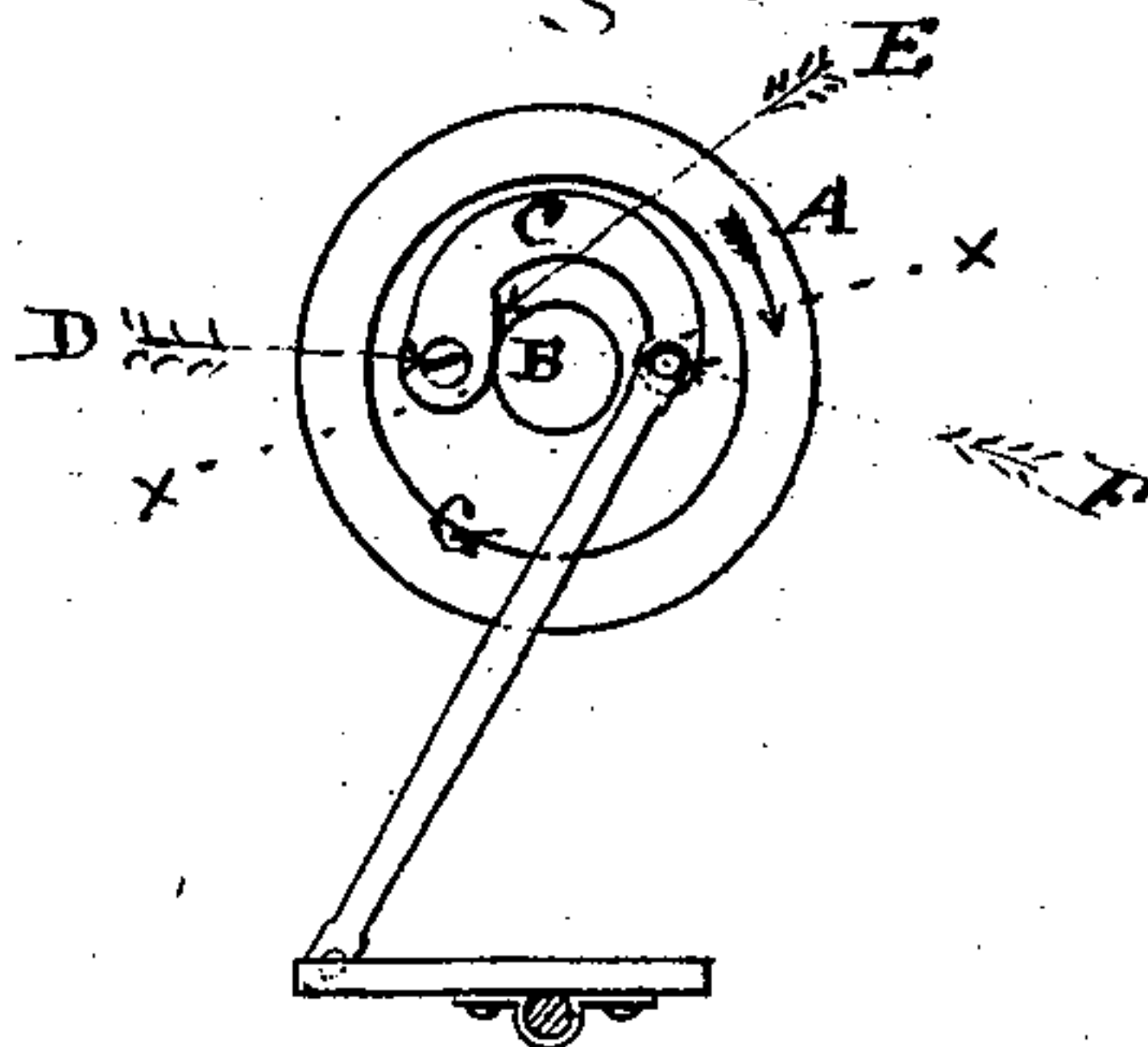


Fig: 5.

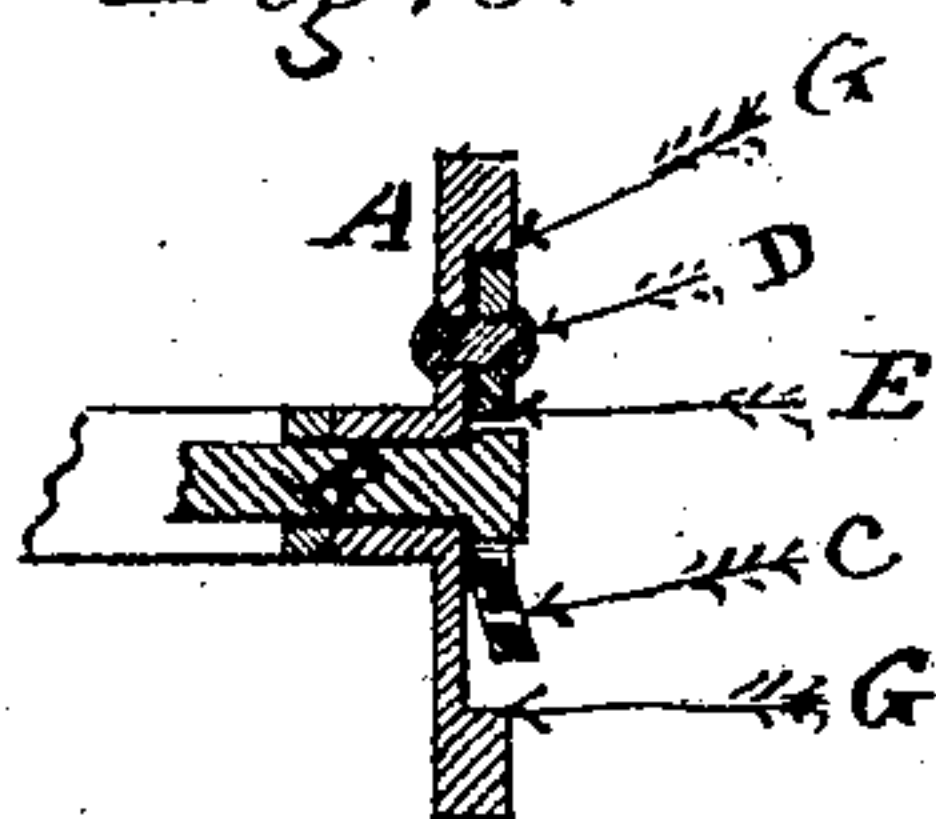


Fig: 6.



Witnesses

Charles A. Baruff
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Inventor

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United States Patent Office.

ALFRED NIELSON, OF BROOKLYN, NEW YORK.

Letters Patent No. 109,835, dated December 6, 1870.

IMPROVEMENT IN TREADLES FOR SEWING-MACHINES.

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, ALFRED NIELSON, of Brooklyn, Kings county, and State of New York, have invented certain new and useful Improvements in Mechanism for Checking the Backward Motion of Treadles in Sewing and other Machines; and I do hereby declare that the following is a full description of the same.

The nature of my invention consists in combining with the pulley-wheel a loosely-working crank-lever having its center-pin eccentric to the axis of the pulley-wheel, and a cam or stop formed on the inner edge of the crank-lever eye, so as to jam or bind against the stationary axis of the pulley-wheel whenever a backward motion is attempted to be given to the pulley-wheel; also, in making the crank-lever of a bent or curved form, so that the crank-rod pin will be nearly on the opposite side of the pulley-axis from that of the crank-lever center-pin, and confining it within a countersunk recess in the face of the pulley-wheel, or by a stop-pin in the face of the pulley, so as to form a bearing for the end of the crank-lever to bear against when rotating the pulley. But

To describe my invention more particularly, I will refer to the accompanying drawing forming a part of this specification, the same letters of reference, wherever they occur, referring to like parts.

Figure 1 is a representation of the invention as applied to my improved treadle.

Figure 2 is a representation of the same as applied to the ordinary reciprocating treadle.

Figure 3 is a face view of the pulley-wheel, showing the position of the crank-lever when rotating the pulley.

Figure 4 is a face view of the same, showing the position of the crank-lever when the pulley is prevented from rotating backward in consequence of the cam on its center of motion impinging upon the end of the pulley-wheel axis.

Figure 5 is a cut section of the pulley-wheel through the line *xx*, fig. 3, showing the countersunk ledge in which the crank-lever operates.

Figure 6 is a detached view of the crank-lever.

Letter A represents the pulley-wheel of a sewing or other machine, rotated by a treadle-motion.

B is the axis or center-pin on which it rotates, and having its end project a little distance beyond the face of the pulley. The object of this is material to the successful operation of my invention. This is due to the fact that it is stationary and the pulley rotates upon it, and therefore becomes a point of resistance or stud, against which the movable crank C can operate to stop the machine.

This movable crank is bent so as to form a small irregular segment of a circle of perhaps a third of a circle. This precise length is not an absolute condition, but may be varied, if desired. The adjustment of it is eccentric to the center-pin on which the pulley runs, and by means of a pin, D, secured to the face of the pulley at whatever point intended for the vibration of the treadle.

On the eye of the crank is formed a cam-like enlargement on its under side, as shown at E, figs. 3, 4, and 6, and is intended, when the crank is secured to the face of the pulley, to be in near contact with the end of the pulley center-pin, but not touch it, except when the pulley is attempted to be run backward, as shown in fig. 4, when the bulging portion of the eye jams against the stationary center-pin of the pulley-wheel and stops its motion.

In the forward motion of the pulley-wheel, as shown in fig. 3, the crank-pin end F is thrown back against the countersunk ledge G, formed in the face of the pulley, (or any simple stop-pin in place of the countersunk ledge answers the same purpose,) and thus causes the pulley to rotate by releasing the cam from its contact with the pulley center-pin.

Letter H represents the treadle-motion, as patented by me October 11, 1870, applied to rotate the pulley.

It will be obvious that the ordinary treadle-motion and connecting-rod is equally as well adapted to operate and rotate the pulley, and therefore I do not limit my invention to any particular treadle-motion, and have only shown it in connection with my previous invention of an improved treadle as one of the ways in which it may be used, and for showing its mode of operation by a practical application of it.

Having now described my invention, I will proceed to set forth what I claim and desire to secure by Letters Patent of the United States.

I claim—

1. The crank-lever C, having a cam or stop, E, on its shank or inner edge, substantially as described, in combination with a pulley-wheel, A, having a countersunk ledge, G, or equivalent device, in or upon its face, substantially as set forth.

2. The crank-lever C, having the cam E thereon, as set forth, in combination with the stationary axis B of the pulley-wheel A, when projecting beyond the face of the pulley-wheel, so as to form a fixed bearing for the cam E to jam against to stop any backward motion of the pulley-wheel, as hereinbefore described.

ALFRED NIELSON.

Witnesses:

CHARLES L. BARRITT,
FRANKLIN BARRITT.