

A. Warth,
Treadle Attachment.
N^o 54,630. Patented May 8, 1866.

Fig 2.

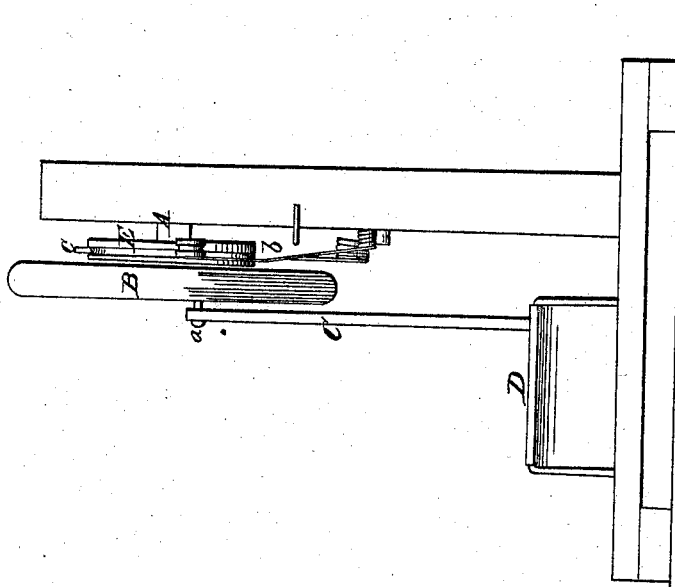
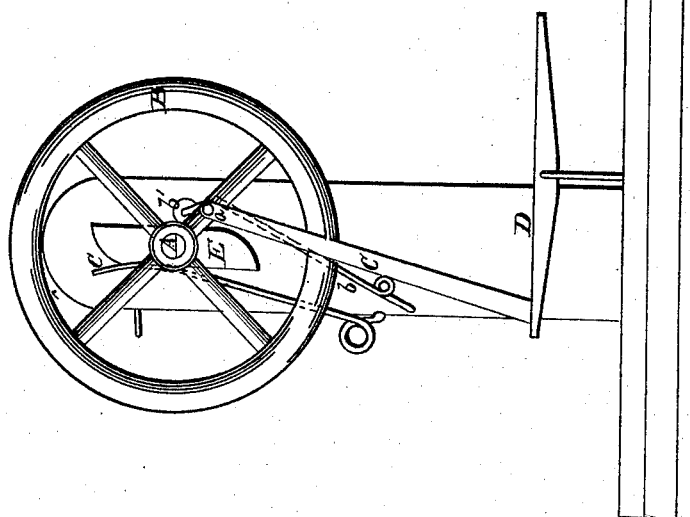


Fig 1.



Witnesses.
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ALBIN WARTH, OF STAPLETON, NEW YORK.

IMPROVEMENT IN ANTI-REVERSING ATTACHMENTS TO TREADLES.

Specification forming part of Letters Patent No. 54,630, dated May 8, 1866.

To all whom it may concern:

Be it known that I, ALBIN WARTH, of Stapleton, Richmond county, State of New York, have invented a new and Improved Anti-Reversing Attachment to Treadles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a front elevation of this invention. Fig. 2 is an end view of the same.

Similar letters of reference indicate like parts.

This invention consists in the arrangement of a cam or double-armed lever on the crank-shaft, and at an angle of about forty-five degrees, more or less, with the crank-pin, in combination with one or more springs bearing on said cam-lever, and with a treadle which connects with the crank-pin in such a manner that by the action of the spring or springs on the cam-lever the crank is always thrown in such a position that the machine can be started by the action of the foot on the treadle and without the aid of the hand; and, furthermore, the motion of the crank-shaft in the wrong direction is rendered difficult, and said crank-shaft is compelled to revolve in the right direction.

A represents the crank-shaft of a sewing-machine, or of any other machine to which motion is imparted by means of a treadle. In the drawings the crank-pin *a* is secured in one of the arms of the fly-wheel B, which is mounted on the shaft, though it must be remarked that the fly-wheel is no essential part of my invention, and the crank-pin might be arranged in any other suitable manner. Said crank-pin connects by the shackle-bar C with the treadle D, and in order to prevent the crank from stopping on one of the dead-centers, and from turning in the wrong direc-

tion, I have secured on the shaft A a lever-cam, E, which is placed at an angle of forty-five degrees, more or less, with the crank-pin *a*, as shown in Fig. 1 of the drawings. This lever-cam is subjected to the action of a spring, *b*, the end of which is armed with a friction-roller, *b'*, to prevent wear on the acting surfaces of the spring and lever-cam.

By the action of the spring *b* on the lever-cam E the crank is thrown beyond the dead-centers whenever the motion of the treadle stops, and the crank-shaft is kept in such a position that motion can be imparted to it simply by the action of the foot on the treadle and without the aid of the hand, and at the same time the action of the spring on the lever-cam renders the motion of the crank-shaft in the wrong direction difficult, and imparts to the whole mechanism the tendency to revolve in the right direction only.

The effect of the spring *b* may be increased by an additional spring, *c*, which bears on the opposite ends of the lever-cam E, though in most cases a single spring is all that is required to produce the desired effect.

This attachment is of particular value for sewing-machines, or other small machines which are operated by treadles, and which are of such a nature that either the mechanism or the work will be damaged if the machine is turned in the wrong direction.

What I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the lever-cam E, spring *b*, and the friction-roller *b'* and spring *c*, in combination with the crank-shaft A, pin *a*, and treadle D, and operating in the manner and for the purpose herein specified.

ALBIN WARTH.

Witnesses:

M. M. LIVINGSTON,
ALEX. F. ROBERTS.