

(No Model.)

J. W. TURNER.
DEVICE FOR OVERCOMING DEAD CENTERS.

No. 496,374.

Patented Apr. 25, 1893.

Fig. 1.

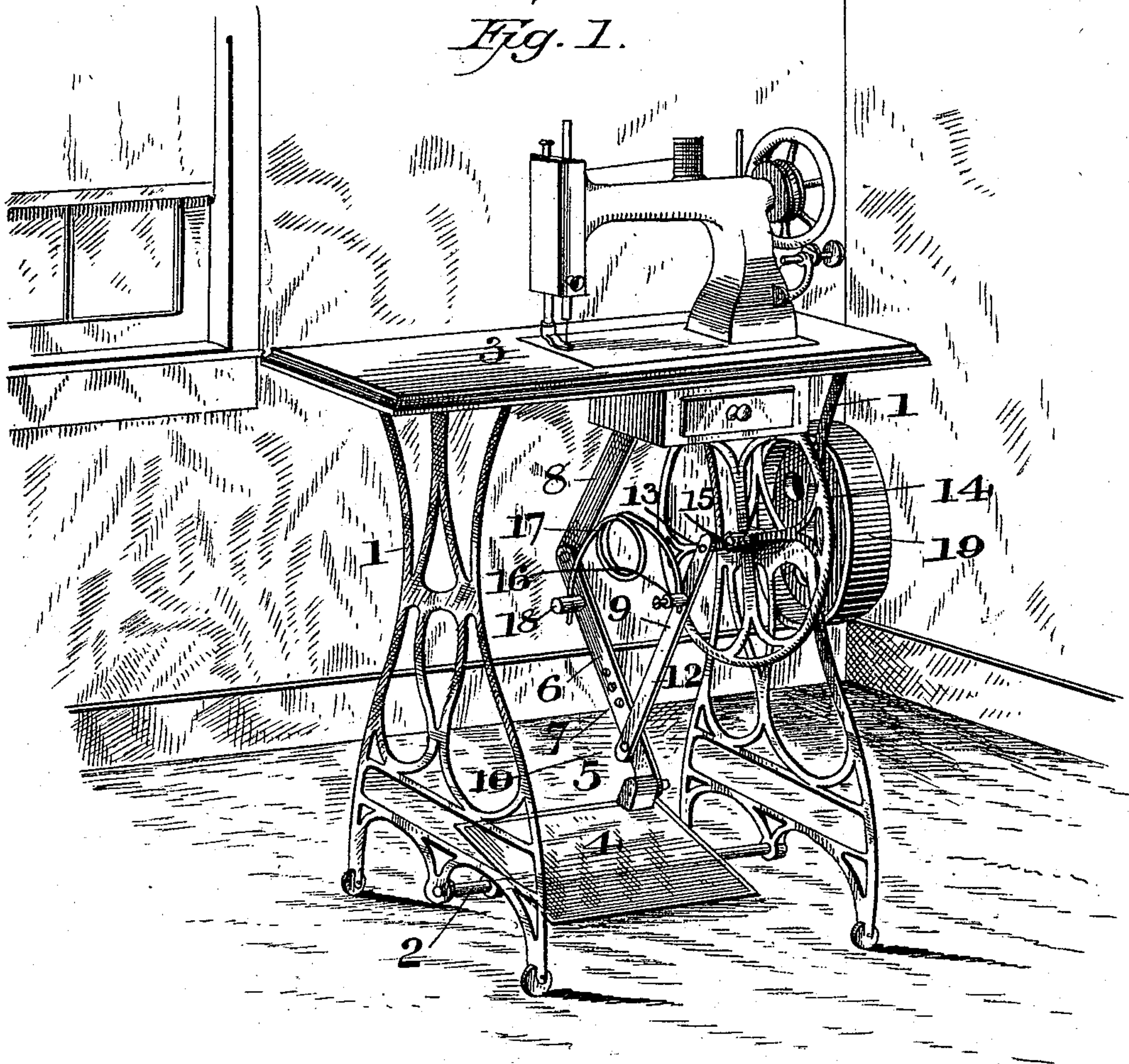
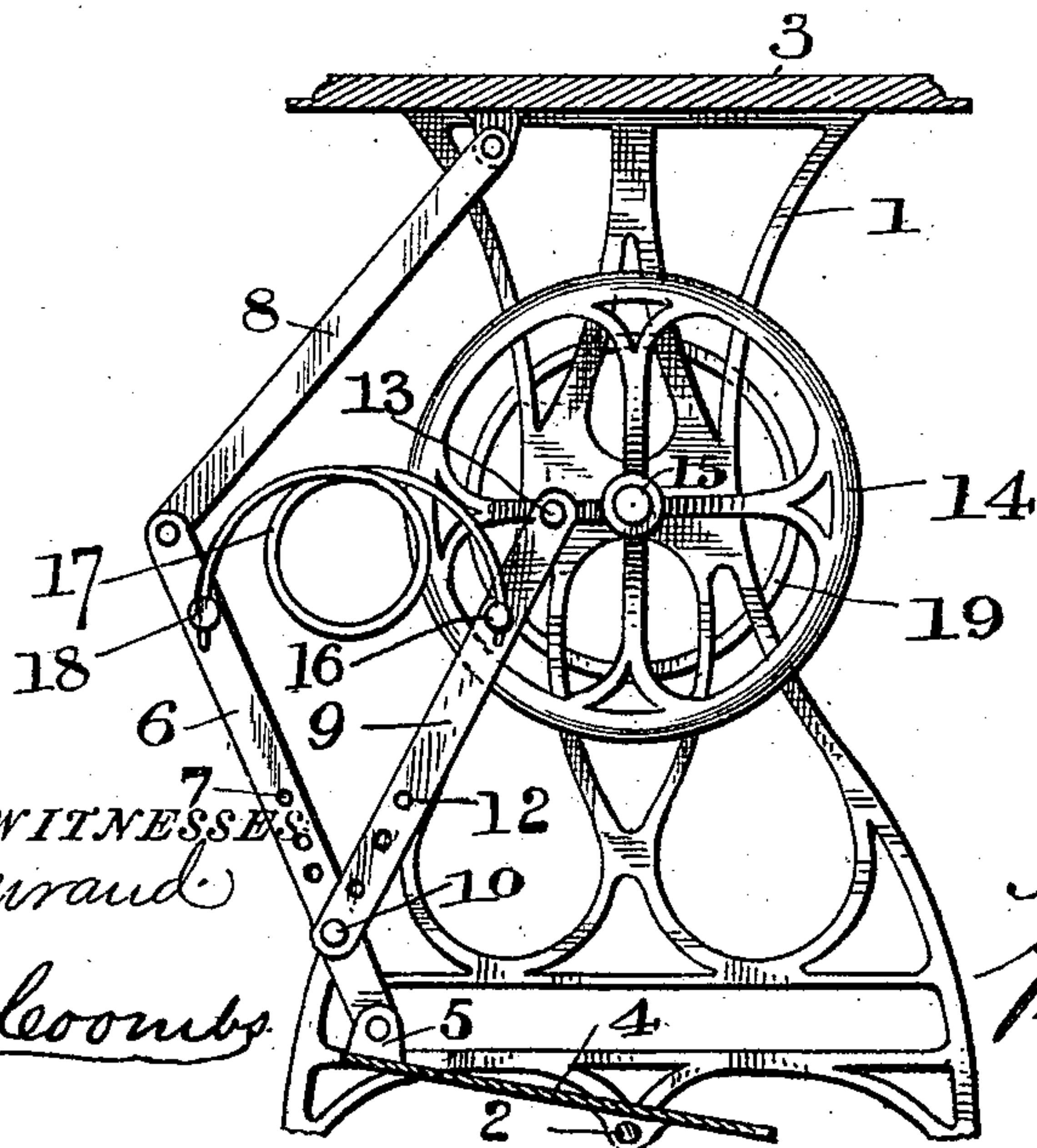


Fig. 2.



WITNESSES:
F. L. Ourand
J. L. Leomont

INVENTOR:
Jacob W. Turner,
Samuel Dugger & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

JACOB W. TURNER, OF VAN WERT, OHIO, ASSIGNOR OF ONE-HALF TO
THEODORE CLAPPER, OF HARTFORD CITY, INDIANA.

DEVICE FOR OVERCOMING DEAD-CENTERS.

SPECIFICATION forming part of Letters Patent No. 496,374, dated April 25, 1893.

Application filed December 5, 1892. Serial No. 454,073. (No model.)

To all whom it may concern:

Be it known that I, JACOB W. TURNER, a citizen of the United States, and a resident of Van Wert, in the county of Van Wert and State of Ohio, have invented certain new and useful Improvements in Devices for Overcoming Dead-Centers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in mechanical movements for overcoming the dead centers or points in cranks and crank-wheels, and is more especially designed for use in connection with sewing machines, although it may be employed with equal advantage in foot power machines, generally provided with a treadle, the oscillating movement of which is converted into a rotary movement by means of a connecting rod and a crank or crank-wheel.

The object of my invention is to provide a simple and economical device of the above character by which the ordinary balance-wheel may be dispensed with and superior results accomplished with respect to efficiency in operation.

The invention consists in the novel construction and combinations of parts herein-after fully described and claimed.

In the accompanying drawings: Figure 1 is a perspective view of a sewing machine stand, with my improvements applied thereto. Fig. 2 is a cross section, through the center thereof.

In the said drawings the reference numeral 1 denotes the uprights or standards, 2 a connecting rod at the lower ends thereof, and 3 the table. Pivoted to the rod 2, is a treadle, 4, having a lug, 5, to which is pivoted a rod 6 provided with a series of holes or apertures

7, said rod being pivoted at its upper end to a bar or rod 8, which in turn is pivoted to the table 3. Near its lower end the rod 6 is connected with a pitman 9, by means of a screw, pin, or stud, 10, which passes through one of a series of apertures 12 therein, and also through one of the apertures 7 of the rod, the object of these apertures being to allow of the said rods being adjusted with respect to each other to vary the stroke of the pitman. The upper end of the pitman is pivoted to a wrist-pin 13, carried by a disk or crank-wheel 14, secured to a driving-shaft 15, journaled in one of the uprights 1. Near its upper end the pitman is provided with a stud 16, with which is connected one end of a torsional spring 17, the outer end of which is connected with a stud 18 near the upper end of rod 6.

The numeral 19 denotes a pulley on the driving-shaft.

The operation is as follows: As the treadle is oscillated on the rod 2, the spring 17 will be alternately contracted and distended just before the dead points or centers are reached, so that the pitman will be thrown over said points.

Having thus described my invention, what I claim is—

In a mechanical movement, the combination with a treadle, the rod connected therewith, and the rod pivoted to the table, of the driving-shaft, a crank, a crank-wheel, the pitman pivoted to the first-mentioned rod, and the spring connected with the pitman and with the said rod pivoted to the treadle, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JACOB W. TURNER.

Witnesses:

BEN LEESON,
EDWARD C. STITZ.