J. W. MULLINS.

Mechanical Movement.

No. 203,758. Patented May 14, 1878.

Fig. 1.

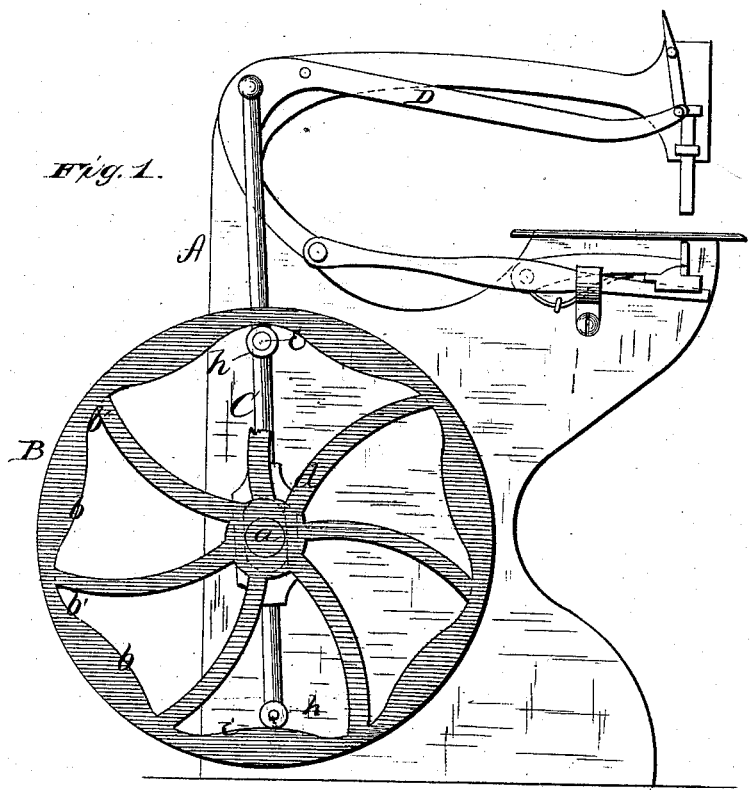
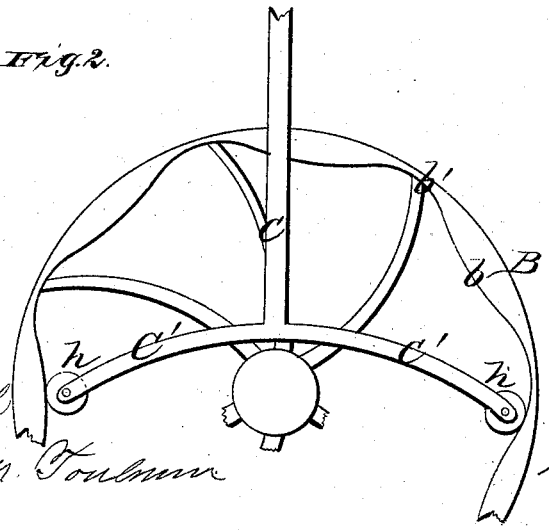


Fig. 2.



WITNESSES

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JOHN W. MULLINS, OF LONDON, KENTUCKY.

IMPROVEMENT IN MECHANICAL MOVEMENTS.

Specification forming part of Letters Patent No. **203,758**, dated May 14, 1878; application filed February 11, 1878.

To all whom it may concern:

Be it known that I, JOHN W. MULLINS, of London, in the county of Laurel, and in the State of Kentucky, have invented certain new and useful Improvements in Mechanical Movements; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a mechanical movement, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation of my mechanical movement, showing the same applied to a sewing-machine. Fig. 2 shows a modification of the movement.

A represents the frame of a sewing-machine, from which projects a stud, *a*, and upon this stud is placed a driving-wheel, B. This wheel may be revolved by means of a crank turned by hand, or by a treadle, or by any other suitable means. The rim of the wheel B projects inward beyond the spokes, and this portion of the rim forms a series of mounds, *b*, and depressions *b'*, alternating as shown; or, in other words, the rim is formed on the inside with a series of long corrugations, which should, of course, be of uneven number, so that the center of one mound, *b*, will be diametrically opposite the center of one depression, *b'*.

C is a rod or bar, having an enlargement at *d*, which is slotted longitudinally and passes over the stud *a*—that is to say, the stud *a* is passed through the slot in the enlargement *d* of the rod C. On this rod or bar, at suitable points, are secured studs *e e*, to receive two friction-rollers, *h h*, which are arranged to bear against the rim of the wheel B. In the drawing I have shown the upper end of this rod or bar C pivoted to a pivoted curved lever, D, for operating a sewing-machine; but it may be applied to any kind of machinery.

By rotating the wheel B the bar or rod C obtains a reciprocating motion, which can be imparted directly to the machinery to be operated without the intervention of cogs, pulleys, belts, or other devices.

The number of strokes of the bar or rod C depends upon the number of mounds and depressions in the wheel B.

Instead of the rod or bar C passing over the stud *a*, said bar may be pivoted and provided with side arms C' C', as shown in Fig. 2. The rollers *h h* will then be suitably mounted in the extreme ends of said arms.

I disclaim the employment of a solid wheel having its periphery corrugated, in combination with two yokes, two sets of connecting-rods, two rollers, and a pitman, as such is not my invention.

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

The wheel B, having its rim on the inside formed with gradual and alternate mounds and depressions *b* and *b'*, and the single rod or bar C, provided with friction-rollers *h h*, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of January, 1878.

JOHN WESLEY MULLINS.

Witnesses:
THOMAS J. BALES,
JOHN B. LUCAS.