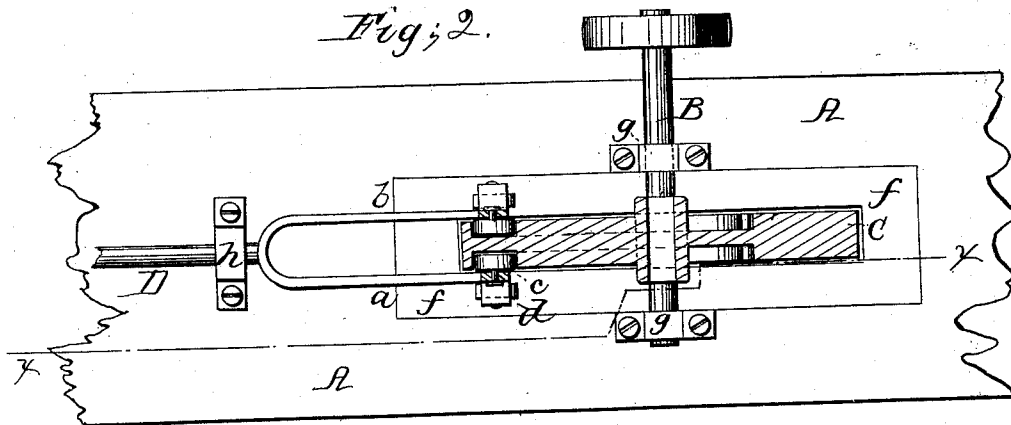
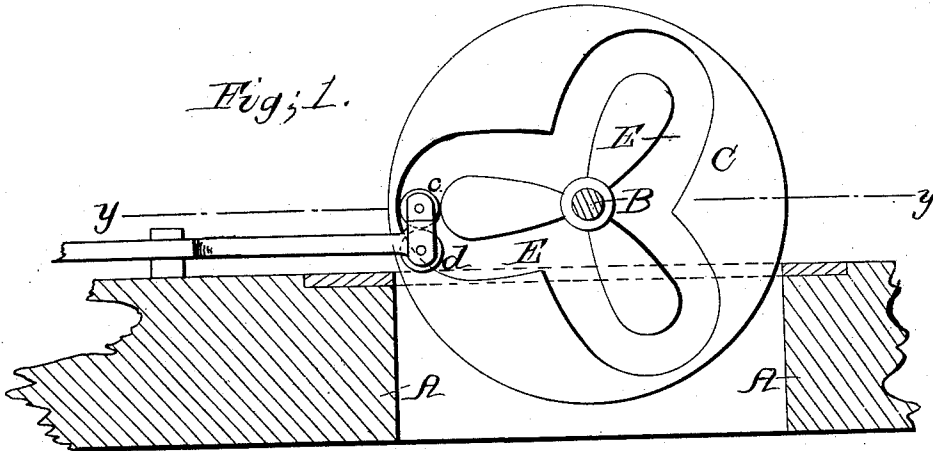


H. BURK.
 CONVERTING MOTION.

No. 65,166.

Patented May 28, 1867.



*Witnesses;
 Theo Busche
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United States Patent Office.

H. BURK, OF MINERAL POINT, OHIO.

Letters Patent No. 65,166, dated May 28, 1867.

IMPROVEMENT IN CONVERTING MOTION.

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, H. BURK, of Mineral Point, in the county of Tuscarawas, and State of Ohio, have invented a new and useful improvement in the Method of Converting and Multiplying Motion; 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.

This invention relates to a method of converting rotary into rectilinear motion, and in multiplying the strokes of a pitman, and the invention consists in forming an eccentric or zigzag channel in the sides of a wheel, which is attached to and revolved by a rotating-shaft, and in constructing a pitman so that it shall receive a rectilinear motion from the wheel, by having its end fitted to the irregular grooves before mentioned, and in the manner hereinafter described.

Figure 1 is a vertical section through the line *x x* of fig. 2, showing a side view of the wheel, the eccentric groove, and the end of the pitman.

Figure 2 is a top or plan view, showing the pitman and the driving-shaft, it being a horizontal section through the line *y y*, fig. 1.

Similar letters of reference indicate like parts.

A represents the bed which supports the machine. B is the shaft. C is the wheel. D is the pitman. E represents one of the irregular grooves in the side of the wheel. This groove may be varied in shape or form, so as to give more or less strokes of the pitman to one revolution of the wheel. The one represented in the drawing gives three strokes. The pitman D forms a crotch at its back end, the legs of which, *a b*, straddle the wheel, as seen in fig. 2. To each of these legs (at the end) there are attached two friction-rolls, *c* and *d*. One of them, *c*, runs in the groove E; the other one, *d*, rolls on the bed. The bed has a metallic plate, *f*, which is let into the top of the bed flush with its surface. The downward motion of the wheel keeps the roll in contact with the plate, while the eccentric groove in the wheel gives the rectilinear motion. The friction-roll *c* which runs in the groove prevents undue friction during the movement. It bears sometimes on one side of the groove and sometimes on the other. The wheel C acts as a fly-wheel, having a uniform motion, which overcomes all the dead-points. *g g* are the shaft journal-boxes which are attached to the bed. *h* is a guide-box through which the pitman slides.

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

The construction and arrangement of the pitman D, the legs *a b* of which straddle the wheel C, and are provided with rolls *c d*, the former running in the groove E of the said wheel, and the other running on the metallic plate *f* of the bed A, substantially as described for the purpose specified.

Witnesses:

JOHN BENNING, Sr.,

JACOB ACKERMAN, Jr.

H. BURK.