(No Model.)

I. F. MONELL.

MECHANICAL MOVEMENT.

No. 307,214. Patented Oct. 28, 1884.

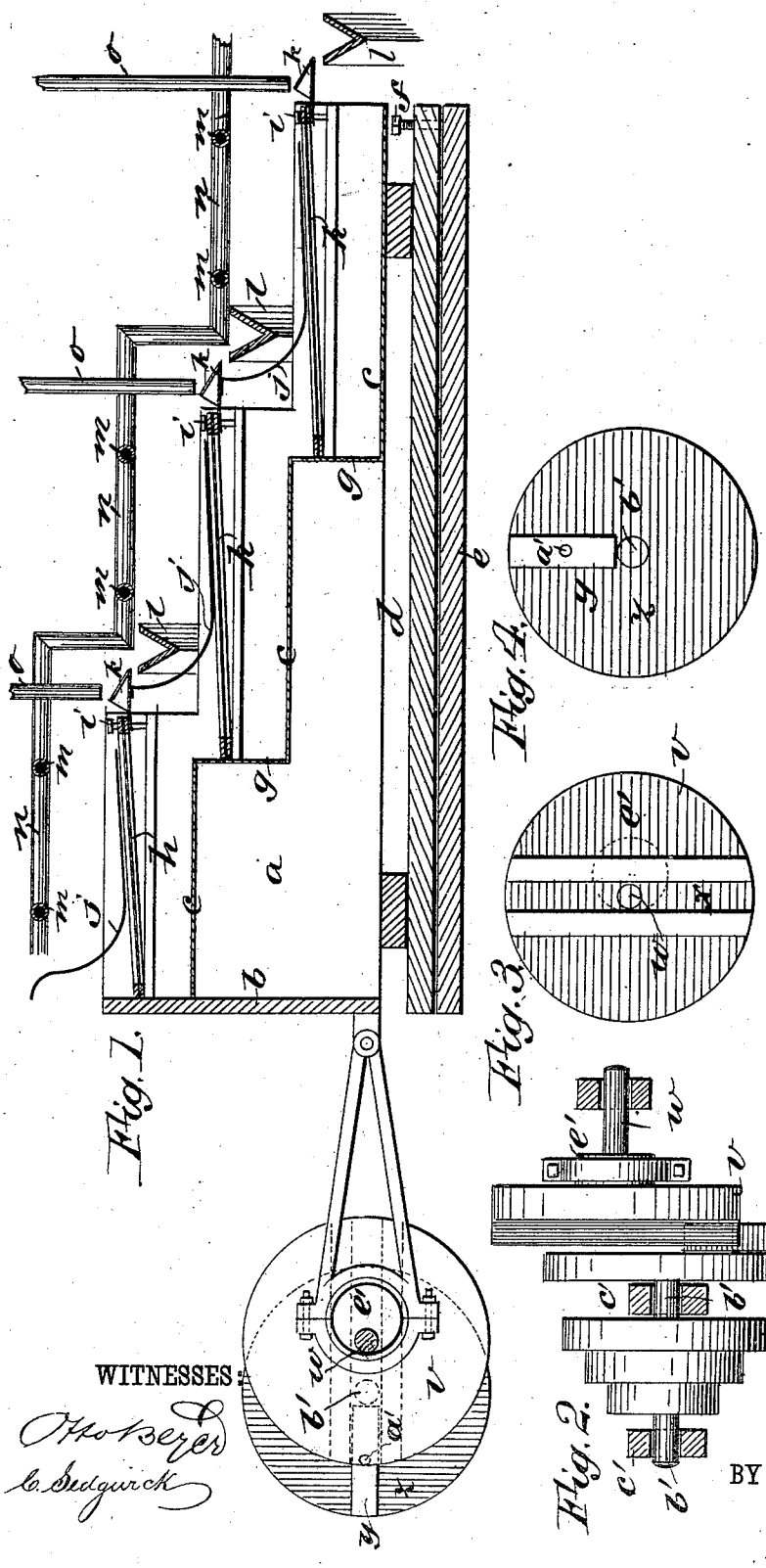


Fig. 1.

Fig. 4.

Fig. 3.

Fig. 2.

WITNESSES:

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IRA F. MONELL, OF SUGAR LOAF, COLORADO.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 307,214, dated October 28, 1884.

Application filed December 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, IRA F. MONELL, of Sugar Loaf, in the county of Boulder and State of Colorado, have invented a new and Improved Mechanical Movement, of which the following is a full, clear, and exact description.

My invention relates to improvements in mechanical movements for converting rotary motion into reciprocating; and to this end it consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my improvement, showing it applied to an ore-sizer. Fig. 2 is a front elevation of the movement. Fig. 3 is a side view of one of the disks, and Fig. 4 is a view of the other disk.

In the drawings, *a* represents the sides, *b* the end, and *c* the bottom, of the pan. *d* is the base, which is mounted on the platform *e*, and is provided with adjusting-screws *f* at the lower end. *h* are the sieves mounted over the different levels of the bottom by means of the adjusting-screws *i* at the ends, from which the water and coarse grades of ore pass off; *k*, aprons on the sieves, from which the coarse grades pass off into the spouts. *l j* are aprons, under which the pulp passes along the sieves. *m* are perforated pipes for discharging the water on the sieves, and *n o* supply-pipes.

The above forms no part of my present invention.

For giving the pan quick backward strokes and slow forward strokes, in order to cause the pulp to advance along the ascending sieves *h*, and also to enable the length of the strokes to be regulated at will, I employ a disk, *v*, for turning the driving-shaft *w*, having a groove, *x*, across its side, in which a rib, *y*, fixed to another disk, *z*, by a pivot-bolt, *a'*, works to rotate disk *v*, the shaft *b'* being arranged eccentric to the shaft *w*, and also being arranged in bearing-supports *c'*, which are in practice to be made adjustable, so as to set the shaft *b'* more or less eccentric to the shaft *w*, according as the strokes of the pan are desired to be varied. The shaft *b'* may be set in line with shaft *w*, if desired. The forward and backward strokes of the pan will then be uniform. The shaft *b'* has cone-pulleys *d'* for the belt by which it is to be driven, and the shaft *w* has an eccentric, *e'*, by which to drive the pan; but a crank may be used instead, if desired.

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

1. Driving mechanism for shaking the pan, consisting of the grooved disk *v* and the ribbed disk *z*, set eccentrically to each other, and thereby effecting alternate slow and quick movements to the pan by the shaft *w* and eccentric *e'*, substantially as described.

2. The combination of the driving-shaft *b'* and ribbed disk *z*, arranged on adjustable supports *c'*, with the grooved disk *v*, to effect variable or uniform rotation of said disk *v* and corresponding reciprocation of the pan, substantially as described.

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Witnesses:
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