(No Model.)

E. ANDERSON.

AUTOMATIC CRADLE ROCKER.

No. 320,833. Patented June 23, 1885.

Fig. 1

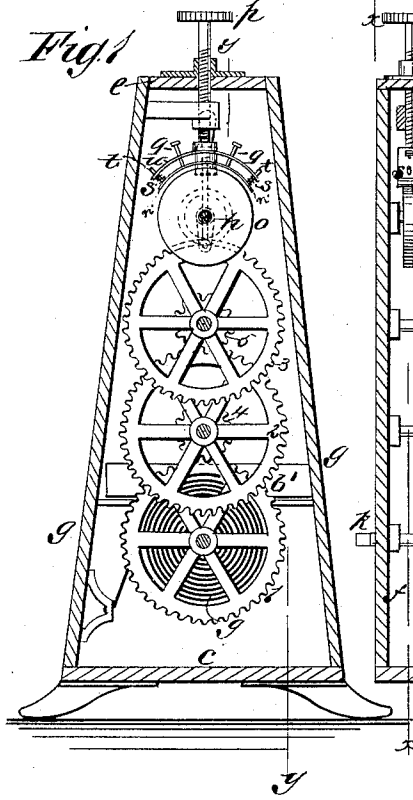


Fig. 2

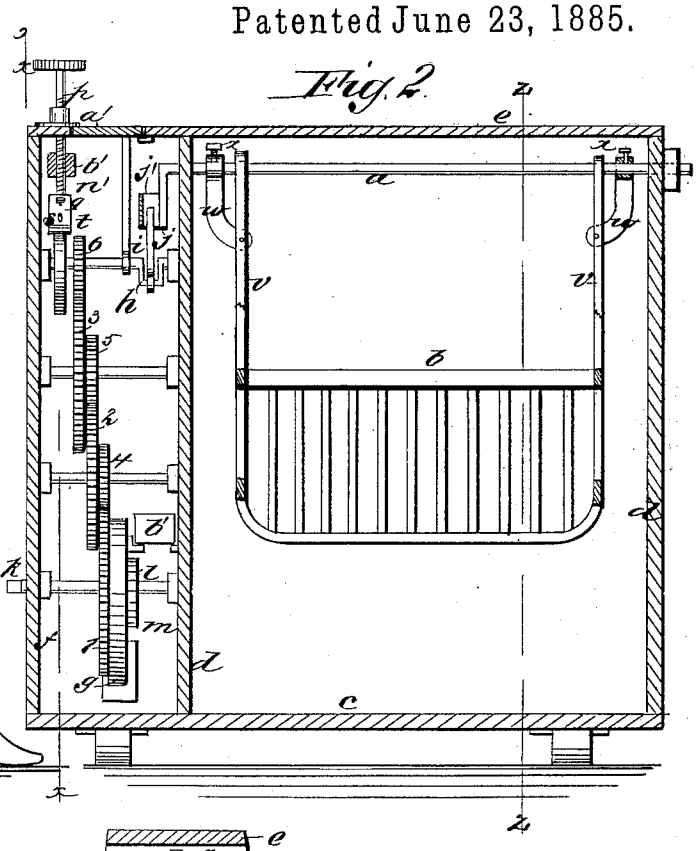
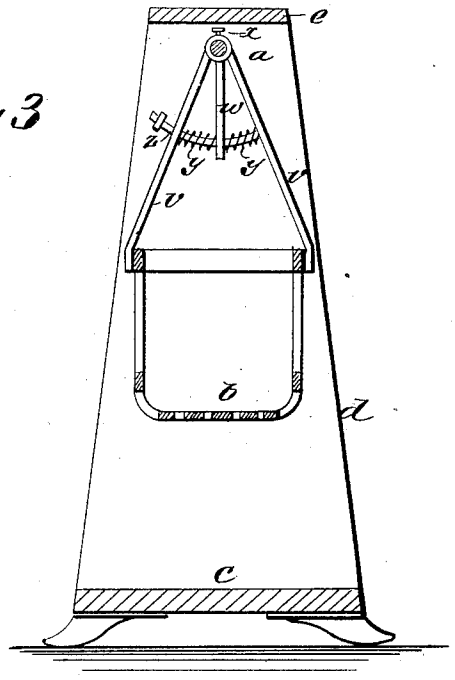


Fig. 3



WITNESSES:

F. McArdle.

C. Sedgwick

INVENTOR:

E. Anderson

BY Munn & Co

ATTORNEYS.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

EDWARD ANDERSON, OF CHICAGO, ILLINOIS.

AUTOMATIC CRADLE-ROCKER.

SPECIFICATION forming part of Letters Patent No. 320,833, dated June 23, 1885.

Application filed May 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD ANDERSON, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Automatic Cradle-Rocker, of which the following is a full, clear, and exact description.

My invention consists in the construction and combination of parts, as will be hereinafter fully described and claimed.

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 transverse sectional elevation of my improved automatic cradle-rocker, taken on the line *x x* of Fig. 2. Fig. 2 is a longitudinal section on the line *y y* of Fig. 1, and Fig. 3 is a transverse section on the line *z z* of Fig. 2.

I make a supporting-frame for the rock-shaft *a*, by which the cradle *b* is to be suspended and rocked, consisting of a broad base-plate, *c*, with uprights *d*, a suitable distance apart for suspending the cradle between them, and a top plate, *e*, for staying the uprights at the top, and on one end of this supporting-frame I construct a case consisting of extensions of the base and top plates, end piece *f*, and sides *g*, in which I inclose a coiled driving-spring, *g*, and a suitable multiplying and transmitting train of gear-wheels, 1 2 3, and pinions 4 5 6, connecting said spring with a crank-shaft, *h*, located in the upper part of the inclosing-case, the crank of which carries a rod or pitman, *i*, working in a sleeve, *j'*, on a crank, *j''*, of the rock-shaft, so arranged that the rotation of the crank-shaft *h* will cause a rocking motion of the shaft *a*. The spring is to be arranged for being wound up by a key applied to the winding-post *k*, as in other spring-power apparatus, and to drive by a pawl, *l*, and ratchet *m;* and for regulating the speed I have provided a friction-brake, *n*, in connection with the friction-disk *o*, fitted on the crank-shaft, with an adjusting-screw, *p*, extending down through the top of the case to work the brake.

To make an elastic contrivance of the brake for graduating the pressure I have connected shoe *n'* by guide-pins *q* to a bar, *u*, to which the screw is connected with a number of coiled springs, *s*, between the shoe and the bar, said springs being fitted on suitable stays, *t*, thus contriving for such elasticity of the brake as will avoid stopping the cradle too abruptly, or similarly releasing the spring-power, as would be the effect with the screw acting directly on the shoe *n'*.

To prevent a jerky motion to the cradle when the crank passes the centers, I propose to hang the cradle-arms *v* loosely on the rock-shaft, and provide driving-arms *w*, rigidly secured to the shaft by set-screws *x*, and acting against springs *y*, fitted on a suitable stay-rod, *z*, extending from one to the other of the arms of each end of the cradle and through the driving-arms, the springs forming buffers, which relieve the cradle of any shocks that might otherwise be imparted to it by the quick action of the crank in passing the centers.

In the top of the inclosing case for the driving mechanism I fit a door, *a'*, to afford access to the interior, and therein I arrange a box, *b'*, for a receptable for such tools as may be required in the use of the machine.

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

1. The automatic rocking-cradle herein described, consisting, essentially, in the supporting-frame, the driving mechanism in one end thereof, the rock-shaft *a*, operated from said mechanism, the cradle *b*, provided with arms *v*, loosely mounted on said shaft, and having the stay-rod *z*, connecting the arms at one end of the cradle, springs *y* on said rod, and the driving-arms *w*, rigidly secured at their upper ends to the rock-shaft, and extending between the springs *y y* on the rod *z*, substantially as set forth.

2. The combination, with the supporting-frame, the rock-shaft *a*, journaled therein, and the cradle *b*, suspended therefrom, of the spring-operating driving mechanism on said frame, the crank-shaft *h*, connected with the rock-shaft, and a friction-disk, *o*, on said crank-shaft, the screw *p*, journaled in the frame, the curved bar *u* at the lower end of the screw, curved shoe *n'* below the bar *u* and adjacent to the friction-disk, the guide-pins *q*, connecting the bar *u* and shoe *n'*, stays *t*, and spiral springs *s*, mounted thereon between the bar and shoe, substantially as set forth.

EDWARD ANDERSON.

Witnesses:
MICHAEL LOFTUS,
WALTER KEEFE.