2 Sheets--Sheet 1.

J. F. KELLEY.

Mechanical-Device.

No. 168,645.

Patented Oct. 11, 1875.

Fig. 1.

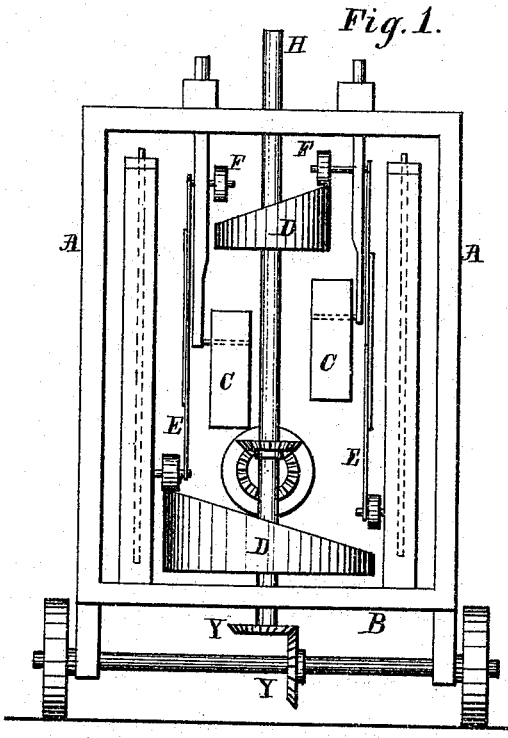


Fig. 2.

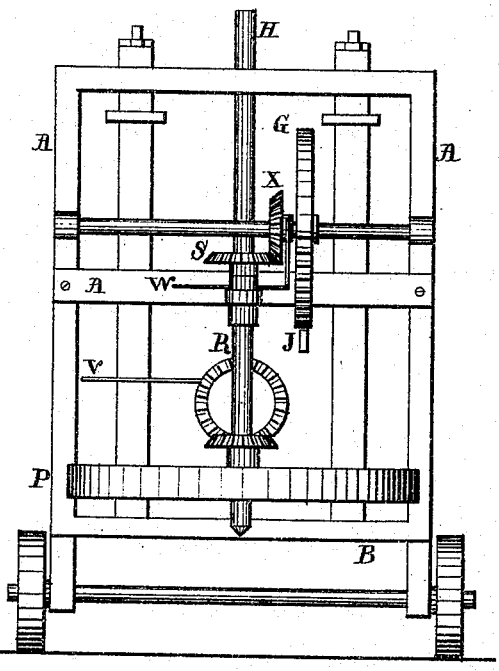
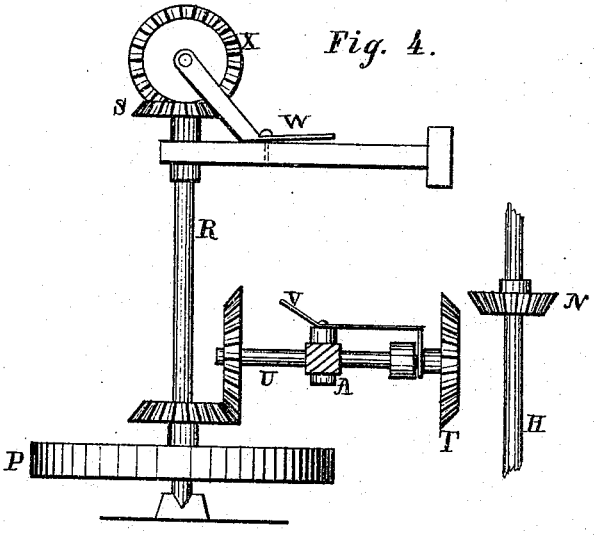


Fig. 4.



Witnesses.

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2 Sheets--Sheet 2.

J. F. KELLEY.

Mechanical-Device.

No. 168,645.

Patented Oct. 11, 1875.

Fig. 3.

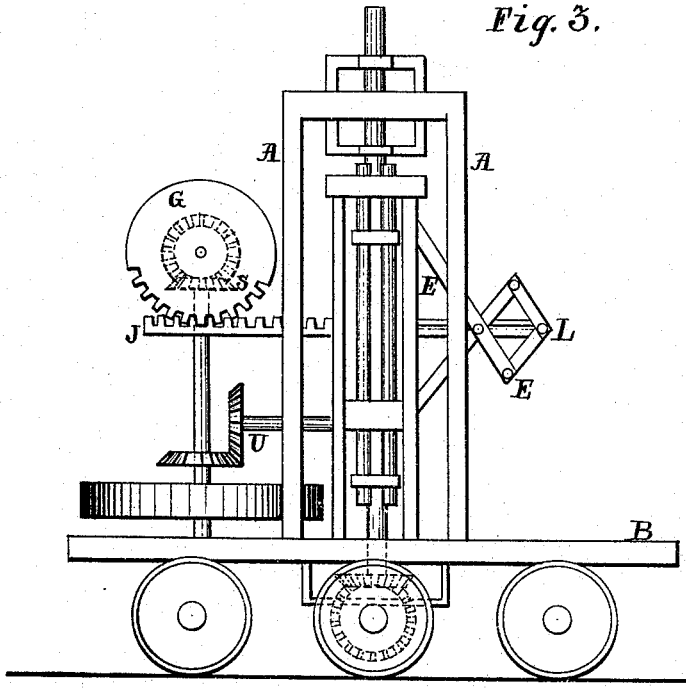


Fig. 5.

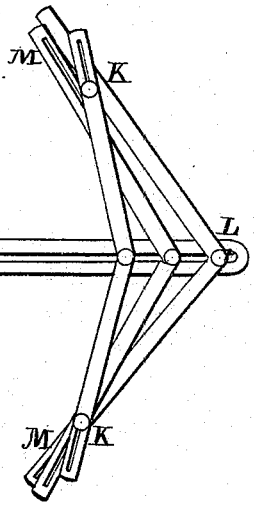
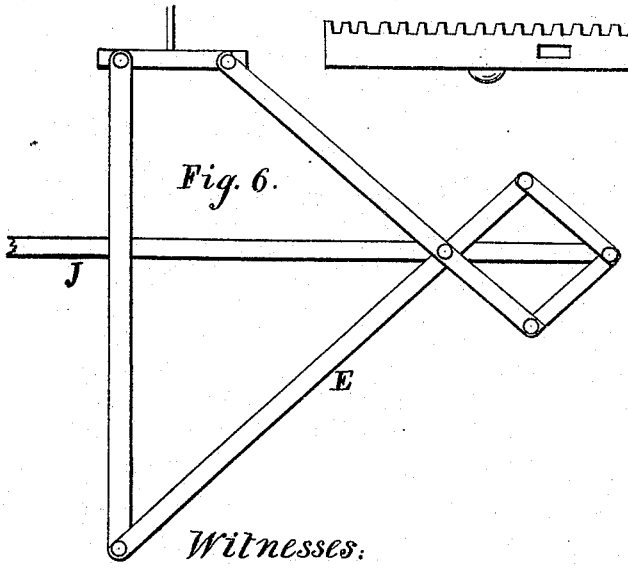


Fig. 6.



Witnesses:

W. C. Chaffee

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UNITED STATES PATENT OFFICE.

JOSEPH F. KELLEY, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN MECHANICAL DEVICES.

Specification forming part of Letters Patent No. **168,645**, dated October 11, 1875; application filed August 18, 1875.

To all whom it may concern:

Be it known that I, JOSEPH F. KELLEY, a resident of Washington city, District of Columbia, have invented a new and Improved Mechanical Device; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—.

Figure 1 represents a front view of the machine or mechanical device; Fig. 2, a rear view; Fig. 3, a side elevation; Fig. 4, a detail view of the devices for gearing and ungearing the machinery from the fly-wheel at any time required. Fig. 5 represents the toggle-levers, two or more; and Fig. 6 shows the shape of such toggle-levers.

The nature of my invention consists in the arrangement and combination of the weighted guide-rods, incline planes, toggle-levers, and fly-wheel gearing, as hereinafter described.

The object of my invention is to apply this mechanical device to street-cars, vessels, and machinery.

A represents the square upright frame; B, the horizontal floor-frame or platform; C C, the weights, as shown at Fig. 1; D D, the upper and lower incline planes and friction-rollers F F, operating the levers E E. G G are the cog-wheels that engage rack-bar J alternately on each side of the center vertical shaft H. The toggle-levers E E expand and contract during their movement. Each lever E (there being two or more) has a slot, M, at each end, that makes it adjustable upon the journal of the friction-roller F. The wheel G may be operated by a crank on the end of its axle, by hand or any other power. The center vertical shaft H revolves with the incline planes D D, and the bevel-gearing Y Y transmits motion to gearing on the car-wheel axle below, as shown at Figs. 1 and 3. The weights C C move up and down alternately with their guide-rods and friction-rollers, which rise and descend upon the incline planes D D. The fly-wheel P operates horizontally; it is located upon one end of the shaft R, and the bevel-wheel S is at the other end of the shaft R. The bevel-wheel T is movable upon the horizontal shaft U, and is geared into or ungeared with the bevel-wheel N of shaft H by shifting the bevel-wheel T backward or forward by means of the horizontal lever V, and the horizontal lever W gears or ungears the bevel-wheel X with the bevel-wheel S, by which means the wheel G is stopped, as also that of the levers E. The fly-wheel P regulates the motion of shafts R, U, and H, and by this arrangement all the machinery can be easily geared or ungeared from the fly-wheel shaft, though under full speed the motion of the machinery will be retarded or checked, while the fly-wheel continues its rapid revolution for some minutes, when, by again gearing the bevel-wheels N, S, and T, the force of the revolving fly-wheel instantly starts and hastens the progress of the machine.

What I claim as my invention, and desire to secure by Letters Patent, is—

The vertical shaft H, with its incline planes D D, friction-rollers F F, weights C C, toggle-levers E E, rack J, cog-wheel G, bevel-gearing N, S, T, and Y, and fly-wheel P, all arranged, combined, and operating as herein described, and for the purposes set forth.

JOS. F. KELLEY.

Witnesses:

A. F. FOX,

J. FRED. KELLEY.