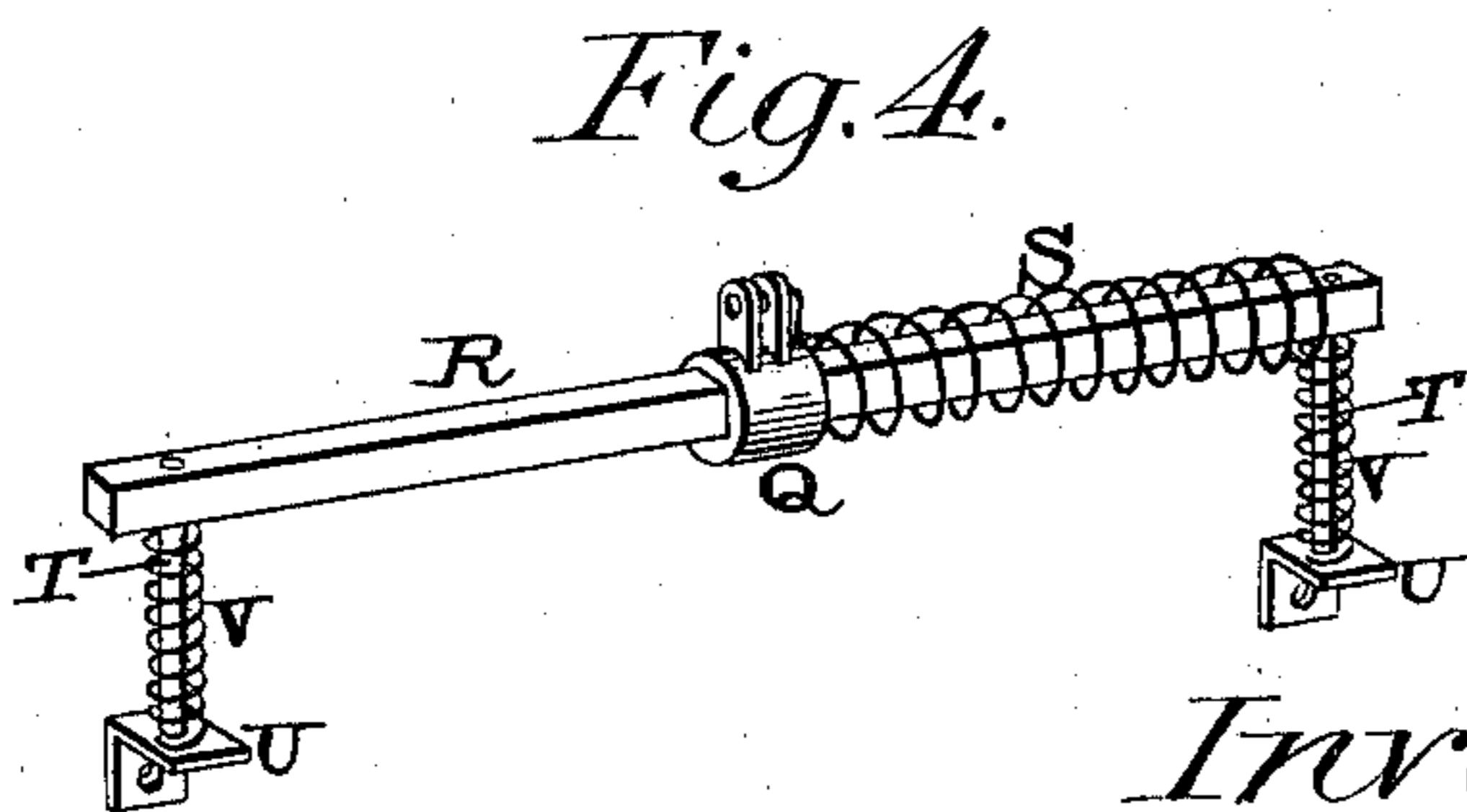
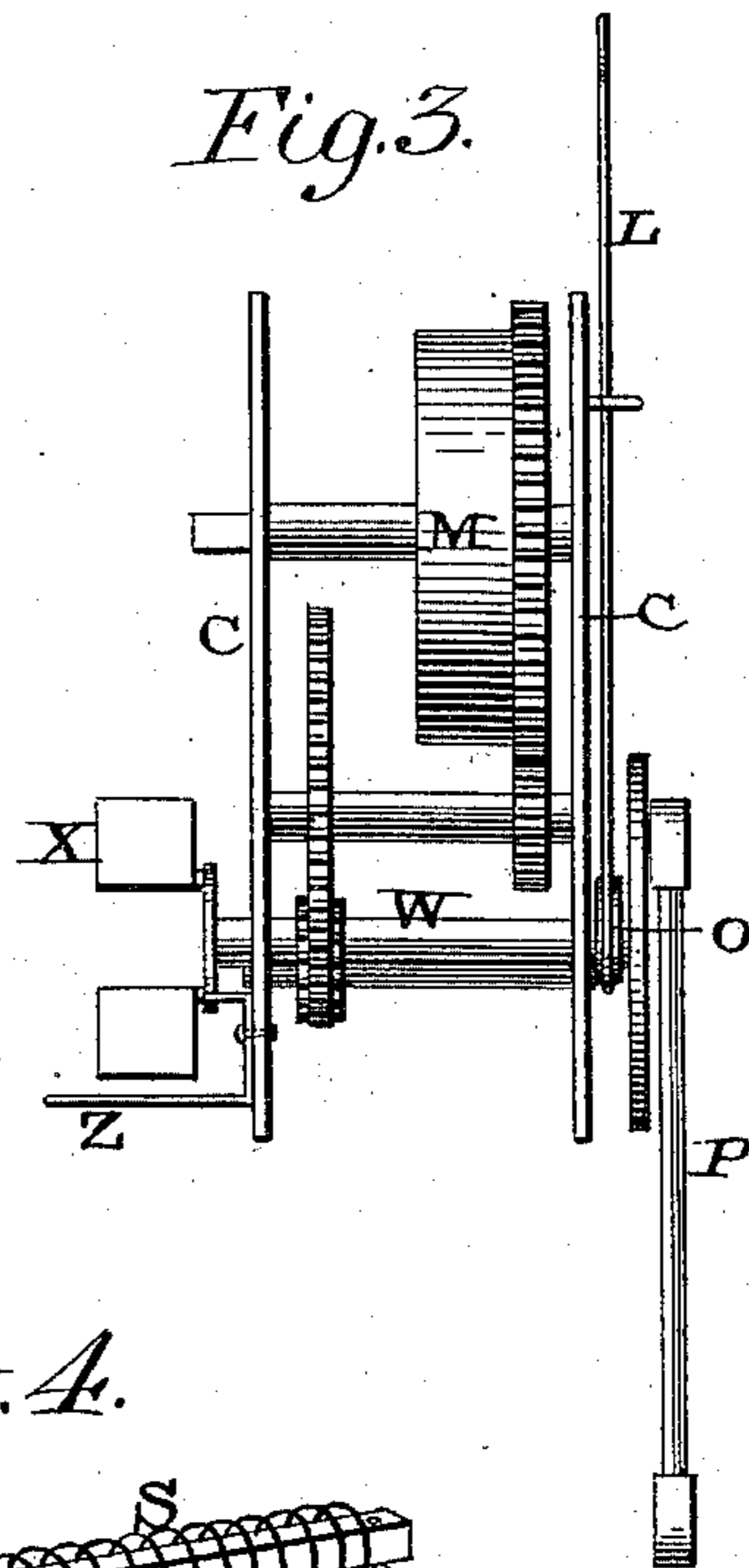
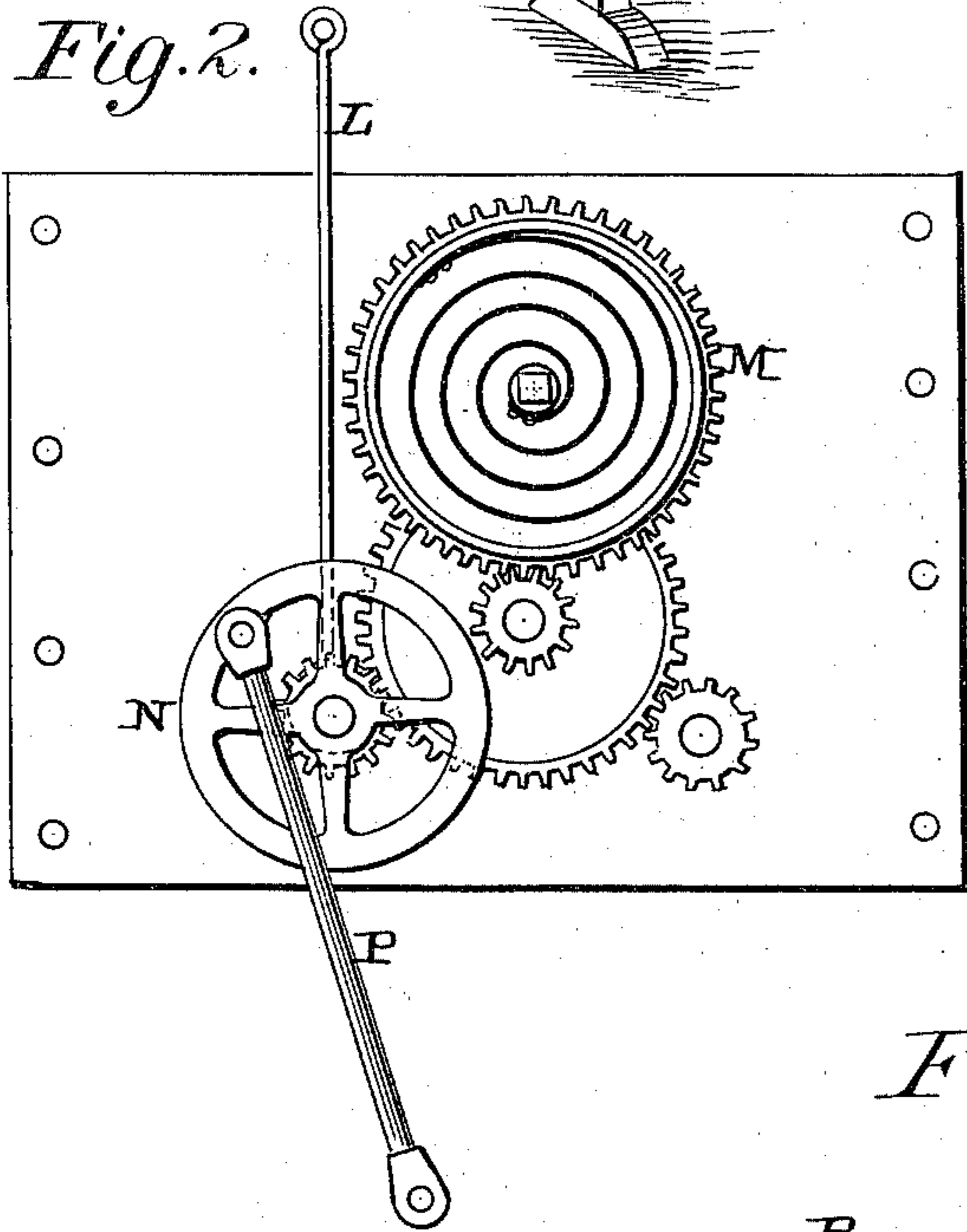
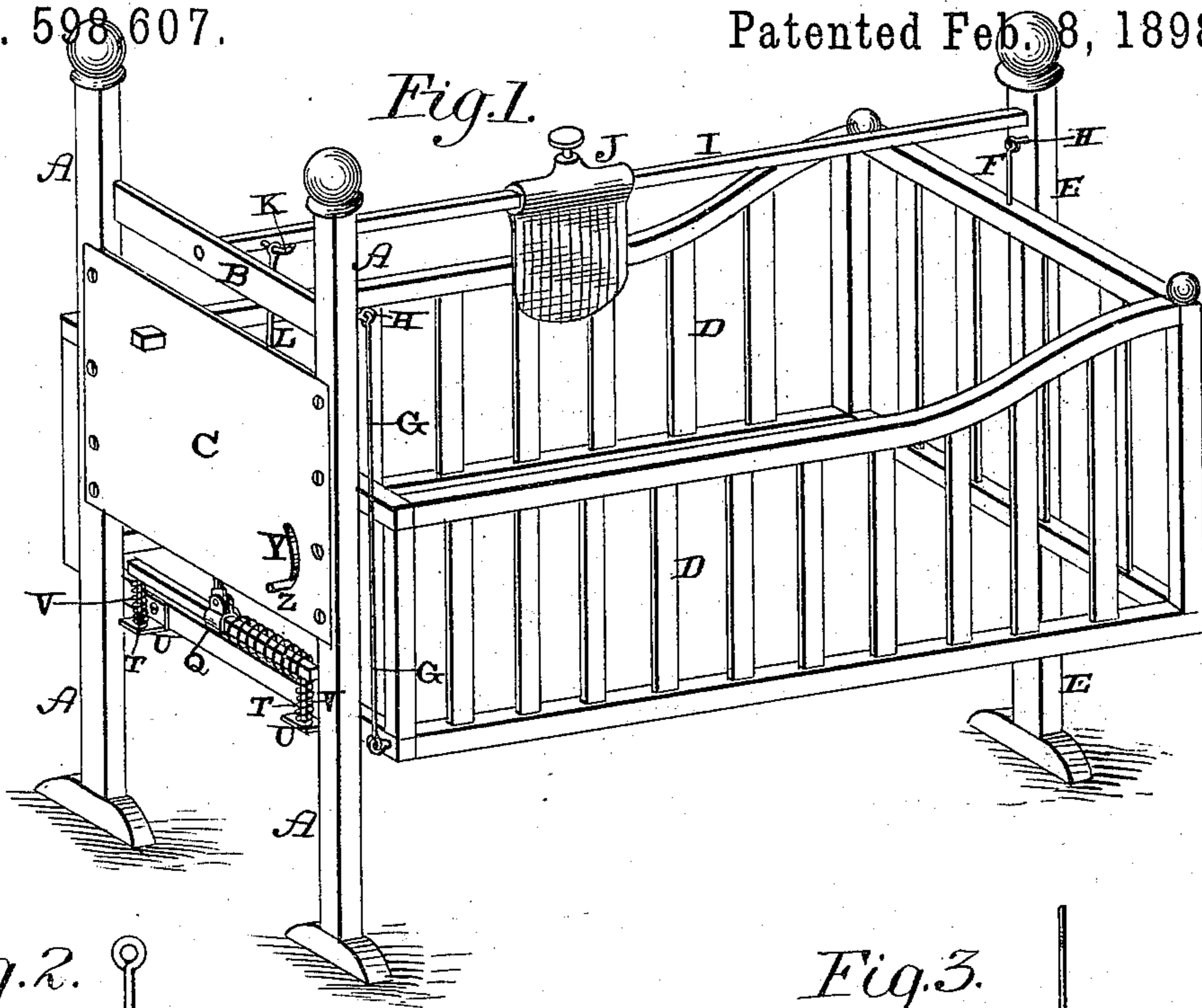


(No Model.)

A. WEINSTEIN.
CRADLE.

No. 598 607.

Patented Feb. 8, 1898.



Witnesses:
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UNITED STATES PATENT OFFICE.

ABRAHAM WEINSTEIN, OF COLLEGE POINT, NEW YORK.

CRADLE.

SPECIFICATION forming part of Letters Patent No. 598,607, dated February 8, 1898.

Application filed April 6, 1897. Serial No. 630,939. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM WEINSTEIN, a citizen of the United States, residing at College Point, in the county of Queens and State of New York, have invented certain new and useful Improvements in Cradles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in automatically-operating cradles; and it consists in, first, a three-legged frame or support and a cradle which is suspended from the three legs at three different points, combined with an operating mechanism for causing the cradle to swing or sway, a rod connected with this mechanism which extends vertically, a rocking shaft which extends longitudinally over the top of the cradle, and a fan secured thereto; second, a supporting-frame and a cradle which is suspended therefrom, combined with an operating mechanism, one wheel of which is provided with a rod which operates the fan and the other provided with a collar, a cross-rod which is secured indirectly to the cradle, and a spring which is placed thereon and which is compressed by the collar as the wheel is made to revolve; third, a cradle, two brackets secured thereto, two rods supported upon these brackets, and a cross-rod which is rigidly secured to the upper ends of the rods, combined with springs which are placed upon the two upright rods which have a vertical play through the brackets, a spring placed upon the horizontal rod, and a means for compressing the spring, all of which will be more fully described hereinafter.

The objects of my invention are to suspend the cradle from three points only and to impart to the body thus suspended a greater swaying motion at the foot than at the head, to cause the fan to be kept in operation during the whole time that the cradle is in motion, and which fan is operated by the same mechanism which sways the cradle, to provide a mechanism which can be applied to any cradle now in use, and to provide means for equalizing any weight which may be

placed upon either side of the cradle, so as to cause the cradle to adapt itself thereto and always sway evenly.

In the accompanying drawings, Figure 1 is a perspective of a cradle which embodies my invention complete. Figs. 2 and 3 are detached views of the operating mechanism, taken at right angles to each other. Fig. 4 is a detached view of the swaying and equalizing rod.

Heretofore cradles have been suspended from two points, in which case the entire body is swayed evenly, and hence as much motion is given to the feet as to the head.

The main object of my invention is to suspend the cradle from three points, so that the feet will receive a much greater motion than the head, and thus not act so injuriously upon the child.

A represents the two end posts, which are connected both by the cross-piece B and the two metallic plates C, in which the operating mechanism is placed. The cradle D is made separate and distinct from both the foot-posts A and the single head-post E, but is suspended from the three posts by the suspending-rods F G. The one F is quite short, as shown in Fig. 1, being connected to the top rail of the cradle, while the other two, G, are long enough to extend down and are connected to the bottom rails, as shown. The upper ends of these two connecting-rods are fastened to hooks or supports H, which project inwardly from the inner sides of the posts, the hooks being relatively placed in relation to each other, so as to keep the cradle D horizontal.

Extending longitudinally from the top of the cradle and supported at one end by the head-post E and at the other by the cross-piece B is the rocking rod I, upon which the fan J, of any suitable construction, is placed. This fan J is adjustable back and forth upon the rod I, so that it can be used over any desired part of the cradle. This fan J and the rod I will of course be removed during the cold months when their use is not desirable. Projecting from one side of the rod I is an arm K, to which the upper end of the operating-rod L is fastened.

The operating mechanism consists of the drum M, in which the spring is placed, and

connected with this toothed drum is a train of wheels, by means of which the cradle is made to sway and its movement regulated. The last one of the series of wheels has an eccentric O 5 formed thereon, and this eccentric operates the rod L, which rocks the rod I, and thereby operates the fan J. Also connected to the opposite side of this wheel M is the rod P, which extends downwardly at a suitable angle and 10 has fastened to its lower end a sliding sleeve Q, which is placed upon the operating equalizing-rod R. Upon this rod R is placed a coil-spring S, which presses against the collar at one end and against one of the rods T, 15 which supports the rod R, at the other. This spring S is compressed at each forward movement of the sleeve Q, and then as the sleeve begins its backward movement the spring expands, and between the alternate compressions and expansions of the springs the cradle D is given a gentle swaying movement, 20 which, as heretofore described, is much greater at its foot than at the head.

The vertical rods T are rigidly secured to 25 the opposite ends of the rod R and have their lower ends play freely through the brackets U. Secured to the lower edge of the foot of the cradle, around each rod T, is placed a spiral spring V, which serves to equalize any 30 weight which may be placed more to one side than the other in the cradle. Should the child roll to one side or a weight be placed in the cradle to one side of its center, this cradle, instead of tilting, simply sinks upon the 35 springs V as the cradle swings back and forth. The sides are equalized in height when the cradle reaches the end of its throw, and hence there is no danger of throwing the child out by having one side tip up higher than the 40 other. Also connected to the operating mechanism is a shaft W, which carries a regulator X upon one end. Through the outer plate C is made a slot Y, and extending through this slot Y is the handle Z of the stop, by means 45 of which the regulator X is instantly stopped. In starting the cradle a slight touch upon one edge is all that is necessary to start it into operation, and then the mechanism here shown 50 will continue a gentle swaying movement until the spring is unwound.

As here shown, the invention is complete; but, should it be desired, any cradle now in use can be suspended between the three posts A E and made to operate as here shown. The cradles of different construction are then suspended, as here shown, from three points, 55 and the operating equalizing-rod R is applied to the lower edge, as is here shown.

Having thus described my invention, I claim— 60

1. A suitable supporting-frame, a cradle or body suspended therefrom at three points, the single connection at the head being shorter than at the foot, combined with a mechanism for causing the body to sway back and forth, 65 substantially as described.

2. A suitable supporting-frame, a body or cradle suspended therefrom, an operating mechanism, and an operating-rod extending from this mechanism, combined with a rod 70 which is applied to the body, and a spring placed thereon, which spring is compressed by the forward movements of the rod, substantially as set forth.

3. A suitable supporting-frame, a body or 75 cradle suspended therefrom, an operating mechanism, a rod extending from this mechanism, provided at its lower end with a sleeve, combined with the rod R supported at its ends upon springs, and the spring S, placed there- 80 on, substantially as specified.

4. A supporting-frame, a body or cradle suspended therefrom, a rocking-rod journaled upon the supporting-frame over the top of the cradle, and which is provided both with 85 a fan and an arm extending therefrom, a motor, the rod L extending from the motor for operating the rod I, and a second rod P combined with the spring-supported rod R, which is attached to the foot of the cradle, a spring 90 placed thereon, and a sleeve connected with the rod P, and which sleeve slides back and forth upon the rod, substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

ABRAHAM WEINSTEIN.

Witnesses:

PETER F. LEBKNECKER,
W. BERTRAND ACKER.