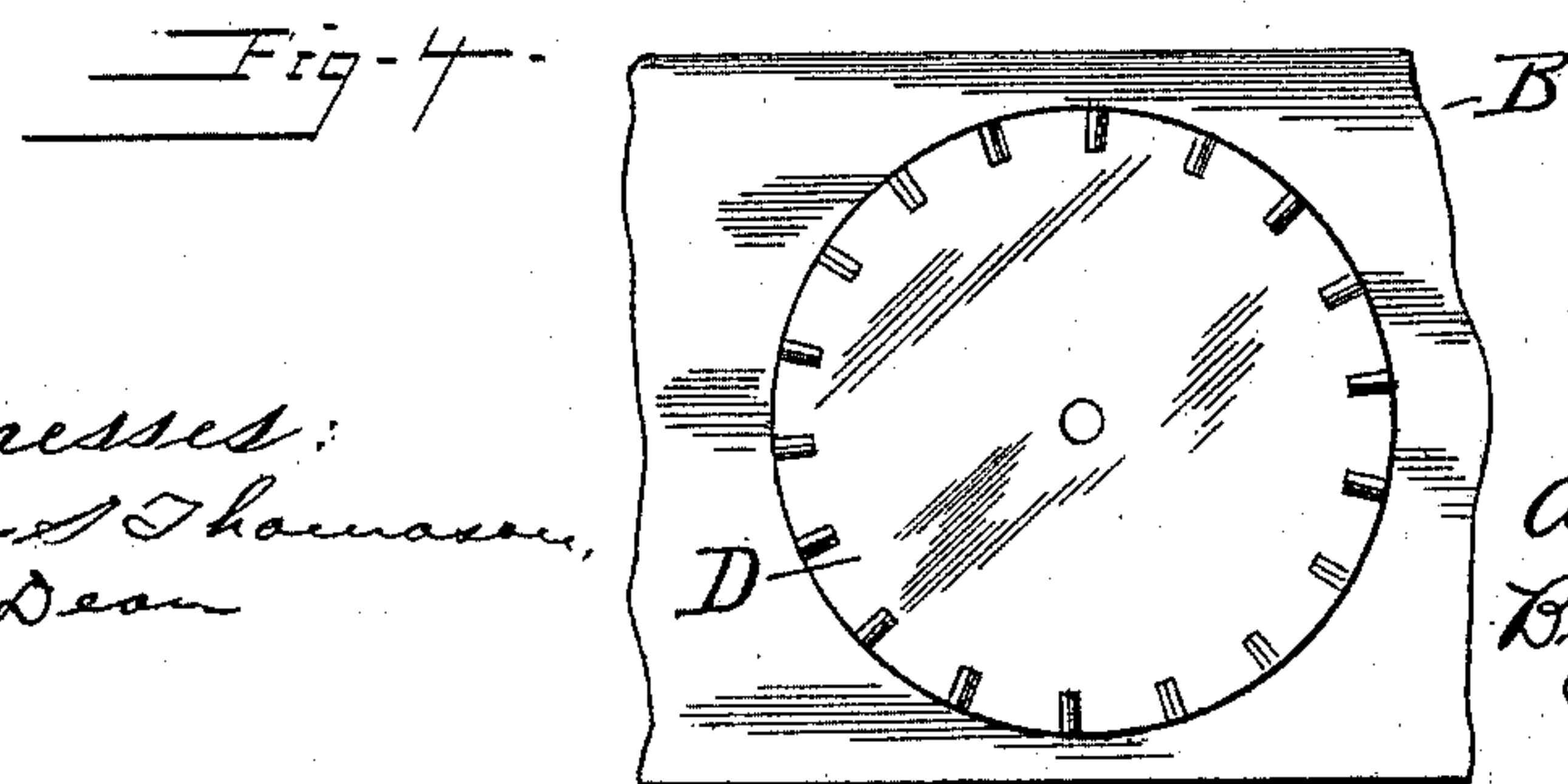
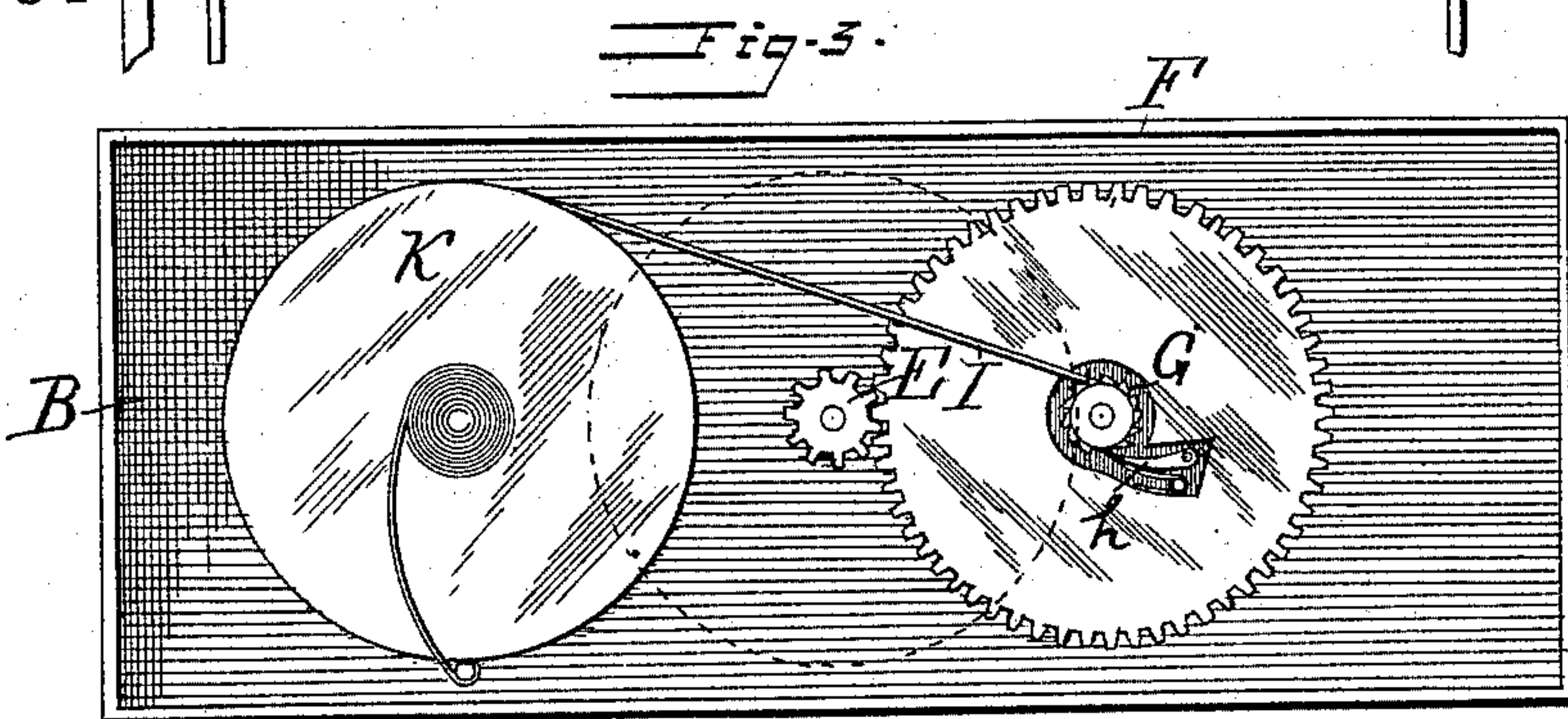
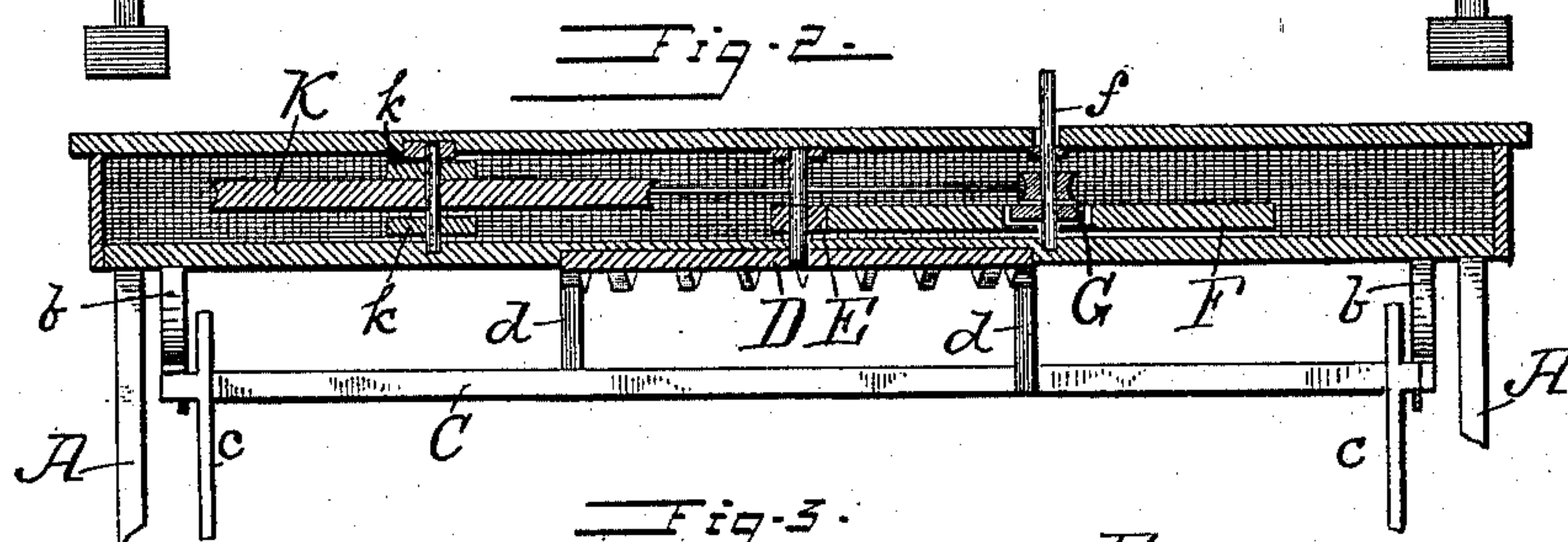
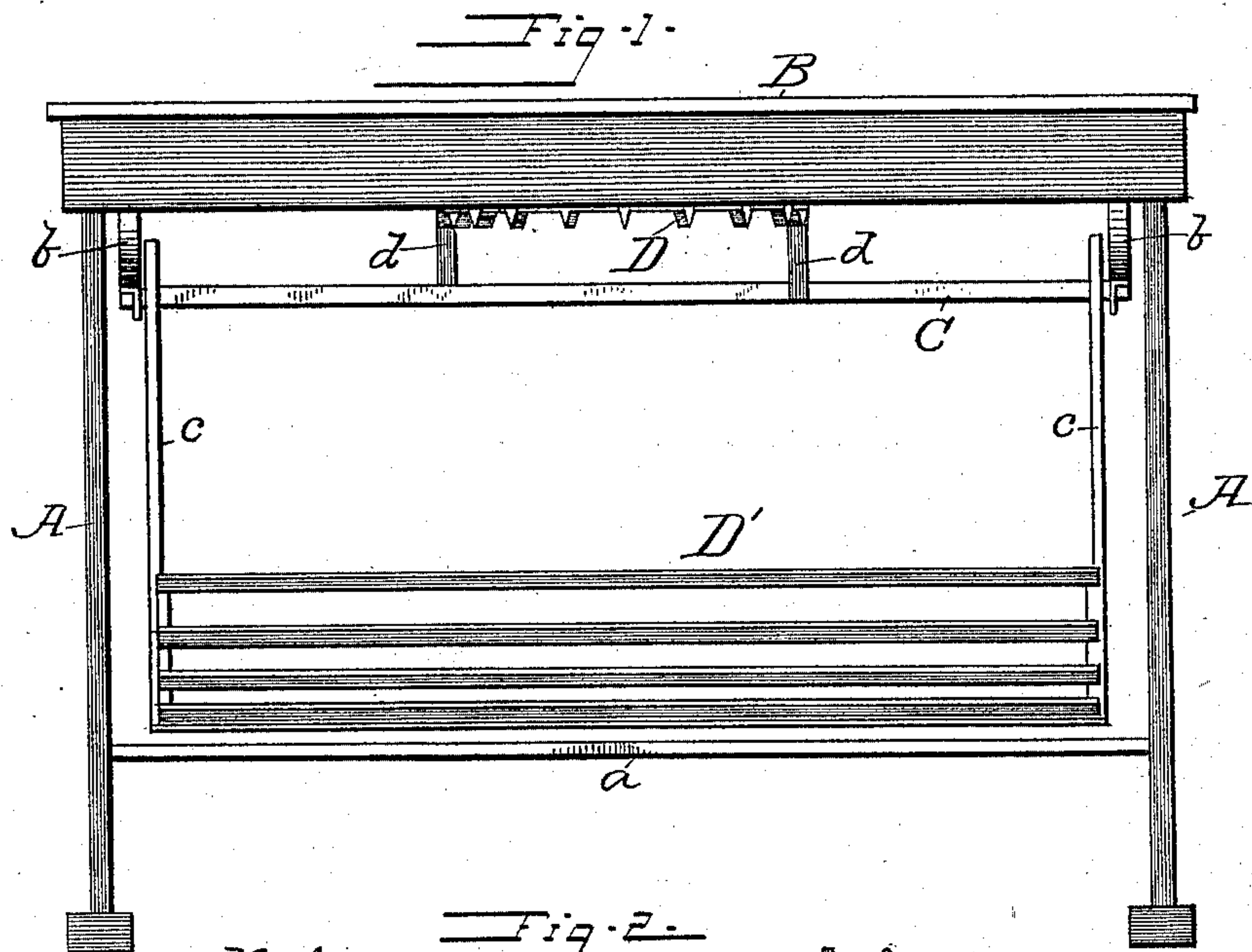


(No Model.)

A. W. PETERSON.
AUTOMATIC CRADLE.

No. 585,852.

Patented July 6, 1897.



Witnesses:
Louis J. Thomson,
M. B. Dean

Inventor:
August W. Peterson
By G. D. Thomson
att'y

UNITED STATES PATENT OFFICE.

AUGUST W. PETERSON, OF MELROSE PARK, ILLINOIS, ASSIGNOR OF ONE-THIRD TO PETER OLSON, OF SAME PLACE.

AUTOMATIC CRADLE.

SPECIFICATION forming part of Letters Patent No. 585,852, dated July 6, 1897.

Application filed March 1, 1897. Serial No. 625,593. (No model.)

To all whom it may concern:

Be it known that I, AUGUST W. PETERSON, a citizen of the United States, and a resident of Melrose Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Automatic Cradles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to provide a swinging cradle which can be swung by spring-actuated mechanism without requiring constant personal attention and which can be stopped whenever desired without other effort than is required to start or stop a cradle. This I accomplish by a cradle supported by suitable pendulums depending from a rock-shaft, which latter is rocked by a crown-ratchet engaging with pallets projecting up from said rock-shaft, and spring-actuated mechanism operating said ratchet, substantially as hereinafter fully described, and as illustrated in the drawings, in which—

Figure 1 is a side elevation of my invention. Fig. 2 is a vertical central section of the upper part of the same broken away from the lower part thereof. Fig. 3 is a plan view thereof with the top of the case removed so as to expose the actuating mechanism. Fig. 4 is a plan view of the underneath of the central portion of said case.

In the drawings, A A represent two corresponding uprights placed at each end of the cradle and supporting the case B, containing the actuating mechanism. These uprights are provided with suitable feet and are connected by a rail *a*, which comes just below the cradle, and the case B, which they support on their upper ends, preferably extends from end to end of the cradle, forming, as it were, a canopy, from the sides of which curtains or netting may be hung.

Near each end I secure to the under side of case B corresponding hangers *b b*, the lower ends of which are provided with open bearings for the knife-edge journals of the longitudinal rock-shaft C. The cradle D', which may be of any suitable design, is suspended from the rock-shaft C by means of the pen-

dulum-bars *c c*, which are secured to and hang from rock-shaft C, near the bearings thereof, as shown.

Near the center of length of the rock-shaft C are two pallets *d d*, consisting of two corresponding vertical arms secured to and projecting up from said rock-shaft, one from one side thereof and the other from the other side. These pallets *d* are engaged by the spurs of the crown-ratchet D at points located diametrically opposite each other, after the manner of an escapement-movement. The spindle, on the lower end of which this ratchet D is secured, is journaled in the bottom of the case B, about the center of length thereof, and has a pinion E on its upper end within said case, which is engaged by the gear F, loosely mounted on a shaft *f*, suitably journaled therein. Above this gear a ratchet G is secured to said shaft *f*, which is engaged by the spring-actuated pawl *h*, pivoted to the adjacent side of gear F, and above said ratchet G is a spool or drum H. On this drum is wound a strong cord I, which leads direct therefrom to and is wound in the concaved or grooved periphery of the main spring-wheel K, secured to and wound around the shaft of which, in the usual manner, is a main spiral spring *k*. The upper end of shaft *f* extends up through the top of case B and has its upper end made square in cross-section, so as to receive over it the correspondingly-cored shank of a suitable crank or key. Now when, with the aid of such crank or key, the shaft *f* is turned so as to wind the cord on the spool or drum H said cord unwinds from wheel K and winds up spring *k*. The winding of the cord on said drum does not, however, affect gear F, because the teeth of the ratchet slip under pawl *h*. When the cord unwinds from said drum H, however, it moves gear F with it, and gear F actuates pinion E and crown-ratchet D. Ratchet D engages one pallet and pushes the same in one direction and then the pallet located diametrically opposite and pushes the same in the opposite direction. This alternate engagement of the pallet after the cradle has once been started swinging by hand will keep the same swinging; but when the swinging of the cradle is stopped the pres-

sure of the teeth of ratchet D on the pallet is not sufficient to start the same independently, and in consequence it remains stationary.

What I claim as new is—

5 The combination with a cradle, pendulums on the lower ends of which said cradle is secured, a rock-shaft from which said pendulums hang, and corresponding pallets projecting up from said shaft, of a suitably-sup-
10 ported overhead case, hangers depending therefrom, a mainspring, a grooved wheel ac-

tuated thereby, drum H, cord I connecting said wheel and drum, a ratchet G, gear F, pawl h pivoted thereon and engaging ratchet G, pinion E actuated by said gear and crown- 15
ratchet D on the same spindle as pinion E the teeth of which engage said pallets, as and for the purpose set forth.

AUGUST W. PETERSON.

Witnesses:

PETER OLSON,

FRANK D. THOMASON.