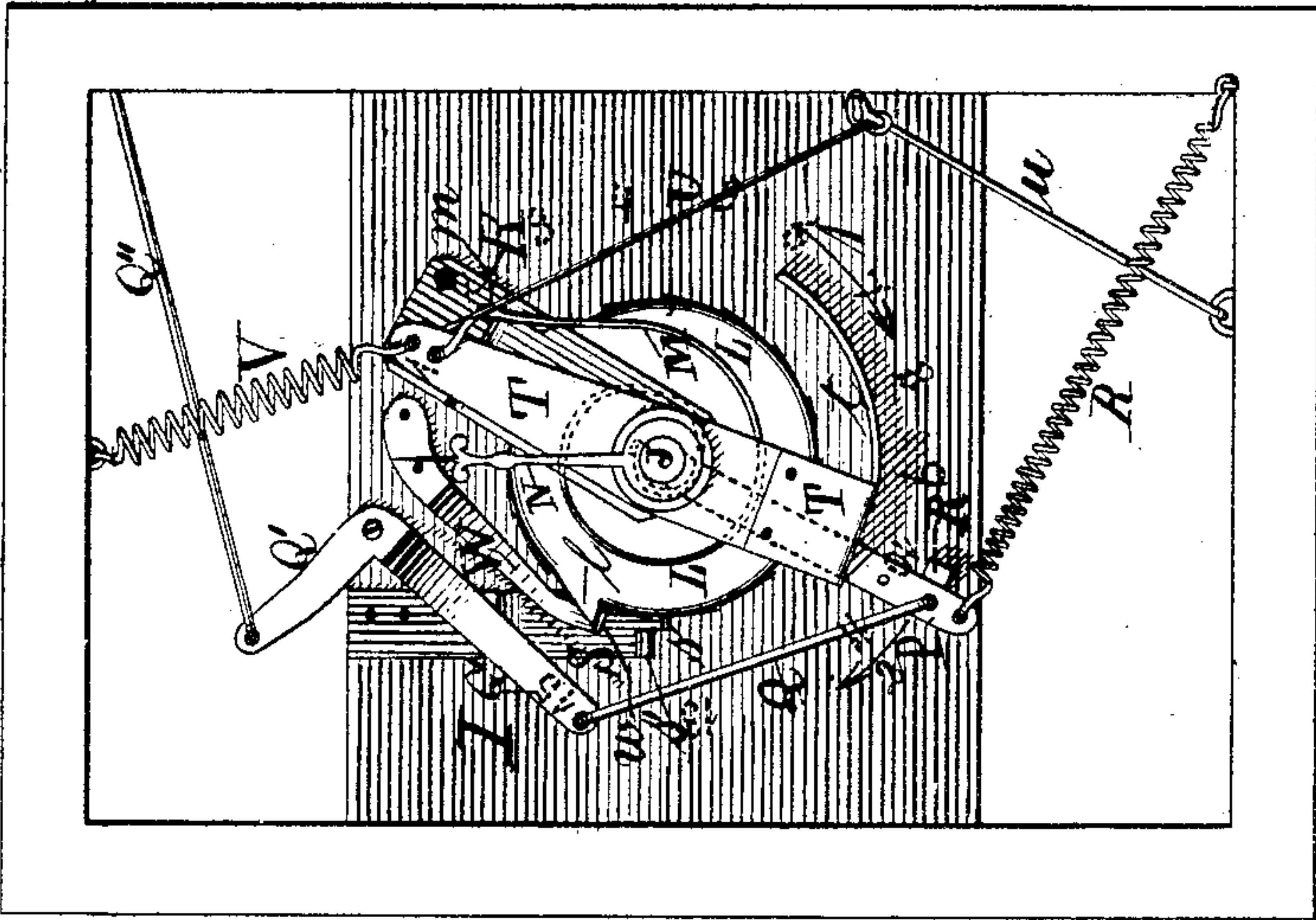
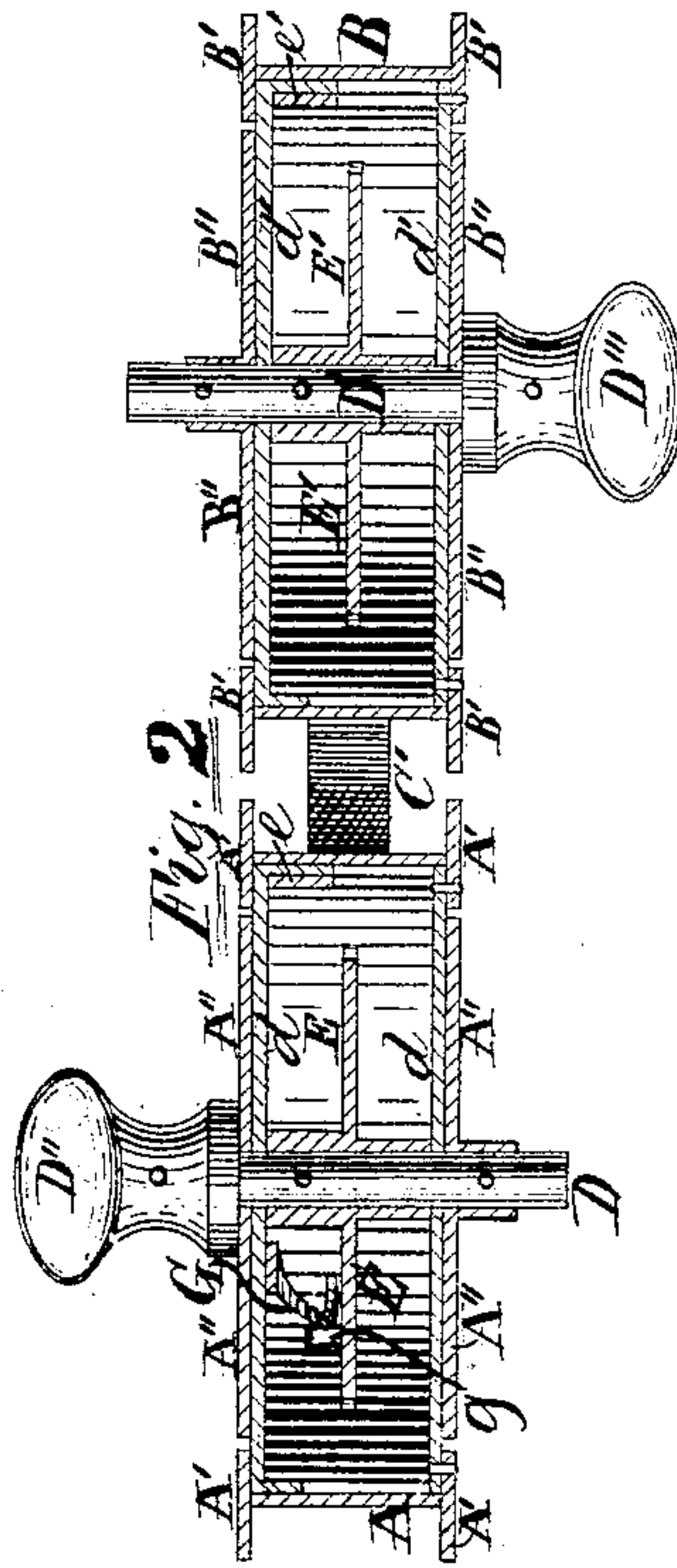
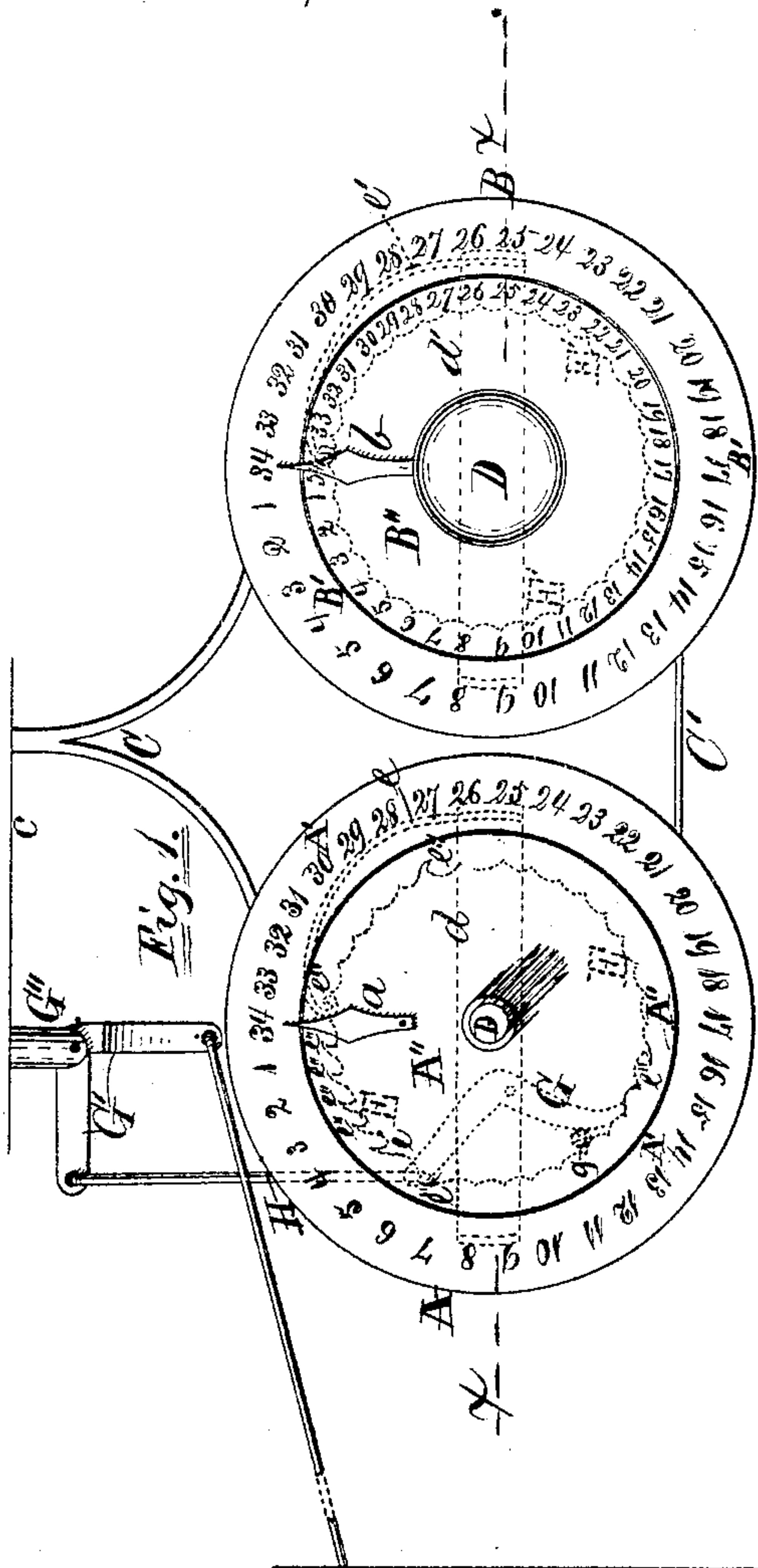


J. LEE.

Improvement in Billiard-Registers.

No. 129,670.

Patented July 23, 1872.



Witnesses:
J. J. Funnick }
Platt R. Richards }

Inventor,
Joel Lee,
by W. B. Richards
Att'y.

UNITED STATES PATENT OFFICE.

JOEL LEE, OF GALESBURG, ILLINOIS.

IMPROVEMENT IN BILLIARD-REGISTERS.

Specification forming part of Letters Patent No. 129,670, dated July 23, 1872.

Specification describing certain Improvements in Billiard-Registers, invented by JOEL LEE, of Galesburg, county of Knox and State of Illinois.

My invention relates to improvements in the construction and operation of self-registering game-counters, in which the players in tallying the game necessarily operate a device by means of which the number of games played is registered. The invention consists in providing a tallying-dial with mechanism of peculiar construction, so arranged as to permit of the pointer being moved backward to a limited extent, for the purpose of correcting mistakes in counting the game, but which cannot be turned backward so as to avoid operating the mechanism for registering the number of games played; and in connection therewith it also consists in providing a tallying-dial which can be freely turned in any direction, backward and forward, without affecting the mechanism for registering the games, so that one player may discount the other when desired, as hereinafter more fully set forth.

Figure 1 is a side elevation of a machine embodying my invention, showing the counting device with the face removed. Fig. 2 is a sectional view of that part of Fig. 1 crossed by the line *x x*, and on the plane of said line.

General Description.

Letters A and B represent two circular cases, connected by a bracket, C, which also connects them with the ceiling *c* or other suitable support. Their connection with each other may be further supported by a bar, C'. The cases A B have each central shafts D D', respectively, which are provided with suitable bearings in the cross-bars *d d' d'*, and have handles D'' D''' on their outer ends, by which they may be rotated. Each of the opposite sides of each of the cases A B has a fixed circle, A' A' B' B', at its circumferential edge, divided into thirty-four equal parts, and numbered from one to thirty-four; and each of them has a circular disk, A'' A'' B'' B'', on its opposite faces, attached to and rotated by the shafts D D'; and each of the disks A'' A'' B'' B'' carries a pointer, *a b*, the pointers on opposite faces of each case A B, being directly opposite to each other, indicating or pointing

to the same number on the fixed circles A' B' on each side of the cases at the same time. The central part of the case B contains a circular disk, E', attached to and rotated with the shaft D', the edges of which have indent teeth, as shown by dotted lines at Fig. 1. *e'* is a spring attached at one end to the case B, and its other end curved shortly and resting in one of the indents on the disk E', as shown also by dotted lines at Fig. 1. The spring *e'* will allow free rotation of the disk E' in either direction, and acts simply as a stop to retain the pointer *b* opposite any desired number on the graduated circle B'. E is a disk, carried on the shaft D in the central part of the case A, its circumferential edge toothed a portion of the circumference the same as, and for the same purpose as, the disk E', and another portion having common ratchet-teeth *e'' e'' e''*, singly and in a cluster, as shown by dotted lines at Fig. 1, for a purpose hereinafter described. *e* is a spring, shown by dotted lines also at Fig. 1, operating in the indent teeth of the disk E, as described with spring *e'*, and preventing backward rotation of the disk E when engaged with one of the ratchet-teeth *e''*. G is an elbow-lever, pivoted to the cross-bar *d*, as shown by dotted lines at Fig. 1, inside of the case A. *g* is a lug or wiper, projecting from the face of the disk E, adjacent to the elbow-lever G. H is a rod or cord, extending from one end of the elbow-lever G to another elbow-lever, G', which is pivoted to a hanger, G'', from the ceiling *c* or other suitable support. I represents a case, which may be situated at the proprietor's desk, or at any other suitable place.

The operation of my invention is as follows: The cases A and B are suspended over the billiard-tables or convenient to the players. One player counts his points in the game at the case A, and the other at the case B. The one at the case B registers his points by simply turning the handle D''', and may turn either forward or backward to count or discount in the game, the pointers *b b*, on each side of his case B, showing himself and his fellow-player on the opposite side of the table the exact number of his points made. The other player counts his points made at the case A in the same manner as B, the indent teeth in the disk E allowing him to turn back slightly

when, by accident, he has turned his pointer *a* past the desired number, and the ratchet-teeth *e'' e''* preventing backward rotation for other than a short distance; the cluster of ratchet-teeth *e'' e'' e''* preventing any backward rotation when the pointer *a* is at or about the close of the game. The number of games played is indicated by the pointer *N* at case I from motion received from the case *A*, as follows: The lug *g*, pressing back one end of the elbow-lever *G*, will draw down the other end and with it the rod *H*, thereby, through the intervention of the elbow-lever *G'* and the rod *Q''*, actuating the register. Another game being played, the same operation will be repeated, and another number counted on the registering-dial at the case *I*.

In the drawing at case *B* the movable disk *B''* is graduated and numbered to correspond with the fixed circle *B'*, and addition may be performed therewith in the usual way with

such adding devices. All sides of both cases may be graduated in the same way, if desired.

Claims.

1. The disk *E*, operated substantially as set forth, when provided with indent teeth, which permit of a limited backward movement of the pointer, and with ratchet-teeth *e''*, arranged as described, for the purpose of preventing the backward movement of the pointer so as to avoid operating the mechanism for registering the number of games played.

2. The combination of the tallying-case *A* and disk *E*, when constructed, as described, with indent and ratchet teeth *e''*, and arranged to operate with mechanism, substantially such as described, for registering the number of games played, in the manner specified.

Witnesses:

JOEL LEE.

J. J. TUNNICLIFF,
PLATT R. RICHARDS.