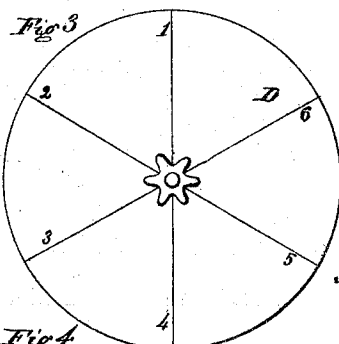
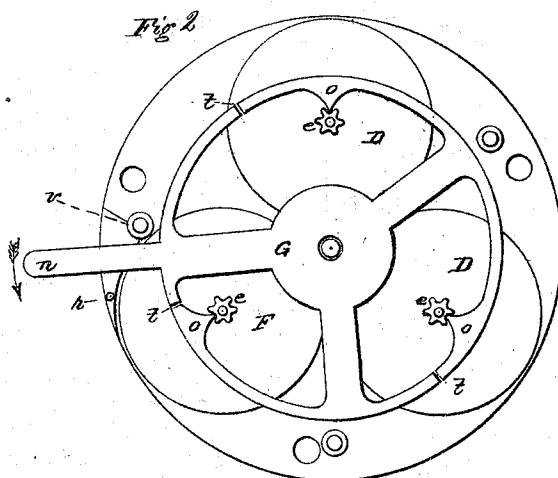
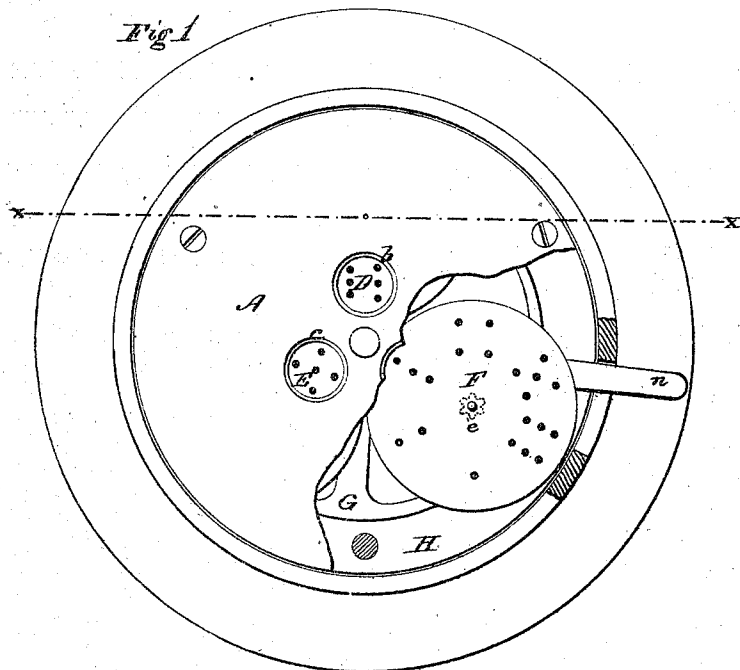


ADOLPH KLINENBURG.

Improvement in Mechanical Dice Apparatus.

No. 121,110.

Patented Nov. 21, 1871.

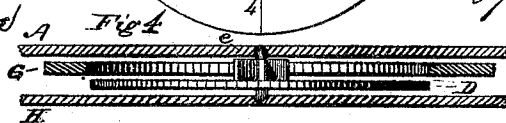


Witnesses.

Harry King.
Phil S. Dodge

Inventor.

Adolph Klinenburg.
by Dodge Munn
attys.



UNITED STATES PATENT OFFICE.

ADOLPH KLINGENBURG, OF BALTIMORE, MARYLAND, ASSIGNOR TO HERMAN C. DREXEL, OF SAME PLACE, AND D. LAMMONT, JR., OF WILMINGTON, DEL.

IMPROVEMENT IN MECHANICAL DICE APPARATUS.

Specification forming part of Letters Patent No. 121,110, dated November 21, 1871.

To all whom it may concern:

Be it known that I, ADOLPH KLINGENBURG, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain Improvements in Mechanical Dice Apparatus, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to a device for playing the game known as dice; and the invention consists in the arrangement of three rotating disks, with means for operating the same, in a suitable frame, as hereinafter more fully explained.

Figure 1 is a top-plan view with a portion broken away to show the interior. Fig 2 is a view of the opposite face with the black plate removed. Fig. 3 is a front-face view of one of the rotating disks, shown detached and enlarged; and Fig. 4 is a transverse vertical section of the apparatus on the line *x x* of Fig. 1.

To construct my apparatus I provide a frame consisting of two circular plates, A and H, which are secured together by studs like the plates of a watch-frame, with a space between them for the rotating disks and the lever for operating them, as shown in Fig. 4. I then provide three disks, D, E, and F, which have shafts secured centrally through them, and on this shaft is also secured a pinion having six teeth, as shown in the various figures. On their face these disks have arranged, in six separate groups, the dots or numbers, from one to six, inclusive, the same as are usually marked on dice, either dots or numbers being used, as preferred; the former being shown in Fig. 1 and the latter in Fig. 3. These are arranged at points equidistant around the face of the disk, and radially opposite the spaces between the teeth of pinion *e*, as represented more clearly in Fig. 3. I then provide a ring or lever, G, which is pivoted at the center, between the disks, as represented in Fig. 2, this lever being provided with a handle, *n*, and having portions of its body cut out, so as to leave a ring divided by the radial arms, which connect it to the central hub, into three equal parts, this ring being of such a diameter as to inclose the

pinions *e*, as represented in Fig. 2. This ring is cut through in each of the three divisions, as shown at *t*, Fig. 2, thus forming three curved spring-arms, each of which is provided on its inner face with a projecting point or tooth, *o*, to engage with the teeth of pinions *e* and thus impart motion to the disks. A stop, *v*, is arranged at a point where the handle *n* will strike against it when the teeth *o* are in gear with the pinions, thus locking the disks fast and preventing their moving. A similar stop, *r*, is secured on the opposite side of the handle, as shown in Fig. 2, against which the handle will strike when moved in the opposite direction, so as to prevent the radial arms of the lever from coming in contact with the shafts of the disks and interfering with their rotation. If mounted on a case, as represented in Fig. 1, these stops may be dispensed with, and the motions of the handle may be limited by the length of the slot through which it protrudes in the side of the case.

The manner of using the device is as follows: The apparatus being placed in a horizontal position, the arm *n* is moved quickly in the direction indicated by the arrow, when the points *o*, engaging with the pinions *e* as they pass, impart to the disks a rapid rotary motion. After allowing them to spin for a brief period the handle is moved in the reverse direction, which causes the projections *o* to engage in the pinions *e* and lock the disks stationary with some one of the series of dots or numbers opposite the holes in the face-plate, where they may be readily seen and read, thus taking the place of the ordinary loose dice.

Having thus described my invention, what I claim is—

The herein-described apparatus, consisting of the rotating disks, in combination with the actuating-lever G, mounted in a suitable frame, and arranged to operate substantially as described.

ADOLPH KLINGENBURG.

Witnesses:

H. M. KLEPPISH,
THOS. M. NORRIS.

(143)