

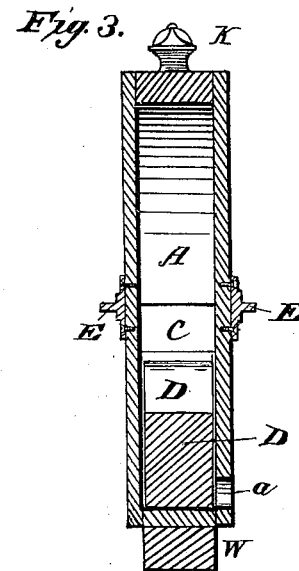
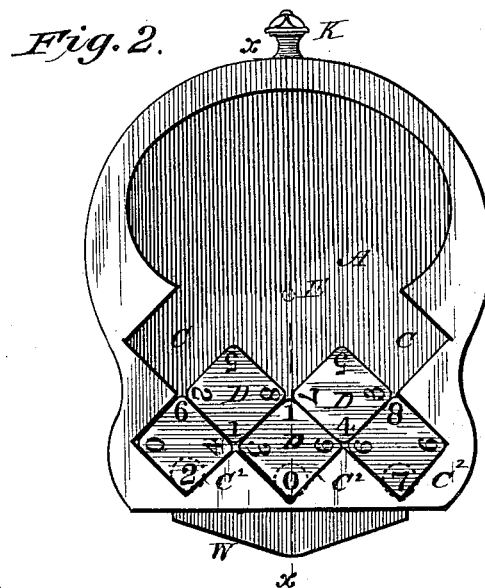
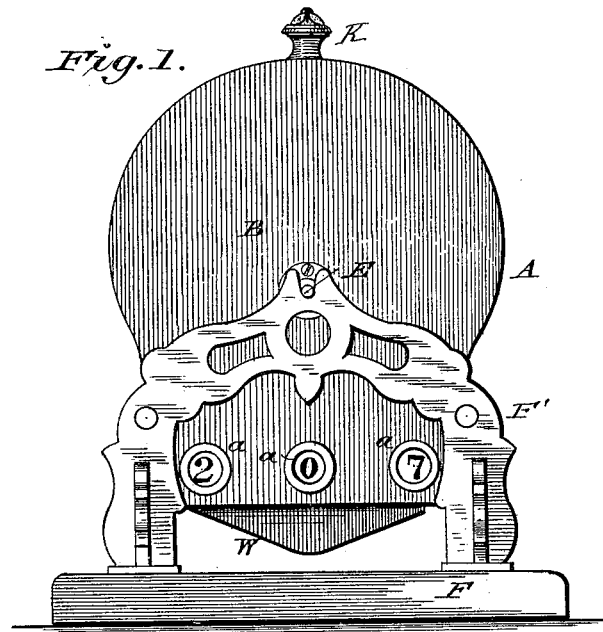
(No Model.)

R. F. DE GRAIN.

DIE AND DICE BOX.

No. 386,577.

Patented July 24, 1888.



WITNESSES:  
*Fred. G. Dretterich.*  
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# UNITED STATES PATENT OFFICE.

REINHOLD F. DE GRAIN, OF WASHINGTON, DISTRICT OF COLUMBIA.

## DIE AND DICE-BOX.

SPECIFICATION forming part of Letters Patent No. 386,577, dated July 24, 1888.

Application filed April 6, 1888. Serial No. 269,850. (No model.)

*To all whom it may concern:*

Be it known that I, REINHOLD F. DE GRAIN, of Washington city, in the District of Columbia, have invented a new and useful Improvement in Dice and Dice-Boxes, of which the following is a specification.

My invention is in the nature of an improved die and dice-box; and it consists in a closed box or case having a chamber just the width of the dice, and having at one end of the chamber angular recesses where the dice come to rest, with holes through the sides of the case through which the numbers on the sides of the dice may be read.

It also consists in a closed dice-box mounted upon journals or trunnions so as to revolve, as will be hereinafter fully described.

Figure 1 is a side elevation of the dice-box and stand. Fig. 2 is a side view of the interior of the box, and Fig. 3 is a vertical transverse section of the dice-box.

In the drawings, A represents the dice-box, which is made flat, with a central chamber equal to the thickness of the dice D, or just enough wider to permit the dice to tumble freely without changing their planes. The bottom portion of this chamber is formed into a series of angular recesses, C C<sup>2</sup>, which correspond in their angles to the angles of the dice D. To keep the dice from catching and hanging, their sharp angles are preferably rounded, as shown. The lower recesses, C<sup>2</sup> C<sup>2</sup> C<sup>2</sup>, are the resting-seats for the dice, while the recesses C above are simply for causing the dice to turn in tumbling, so as to show different faces.

Each die has several figures on its face—one at each angle—and at the lower part of the case and on a line with the lower figure of each die resting in the seats C<sup>2</sup> are openings a through the front face, B, of the case, through which the numbers may be read.

As this dice-box is turned or inverted, it

will be seen that the dice D tumble and are turned without changing their planes, and when they drop to their seats C<sup>2</sup> again they show new figures through the openings a.

To facilitate the operation of turning the dice-box and changing the dice, the box is formed with trunnions or journals E at or near its center, and a base, F, with supporting-frame F', is made to carry these journals, so that the box can readily revolve.

K is a handle or thumb-piece at the top of the box, and W is a weight fixed to the bottom of the case to cause it always to gravitate to the proper position.

I may use any number of dice and any number of seats or recesses C<sup>2</sup>, and the dice and seats may also have a greater or less number of angular sides. The shape of the box or case and its supporting-frame are of course immaterial and may be varied.

Having thus described my invention, what I claim as new is—

1. A dice-box having a closed chamber just wide enough to receive the dice, with recesses or seats at one end for the dice, and openings in its side opposite these recesses or seats, and dice made to correspond in shape with said seats, and having numbers on their sides and constructed to tumble in said box or case without changing their planes, substantially as and for the purpose described.

2. A revolving dice-box containing dice, and having openings in its sides to show the numbers, in combination with a supporting-frame, and a set of horizontal journals and bearings connecting the box to the frame for revolution in a vertical plane, substantially as and for the purpose described.

REINHOLD F. DE GRAIN.

Witnesses:

WM. R. BUSHEY,  
R. D. MESTON.