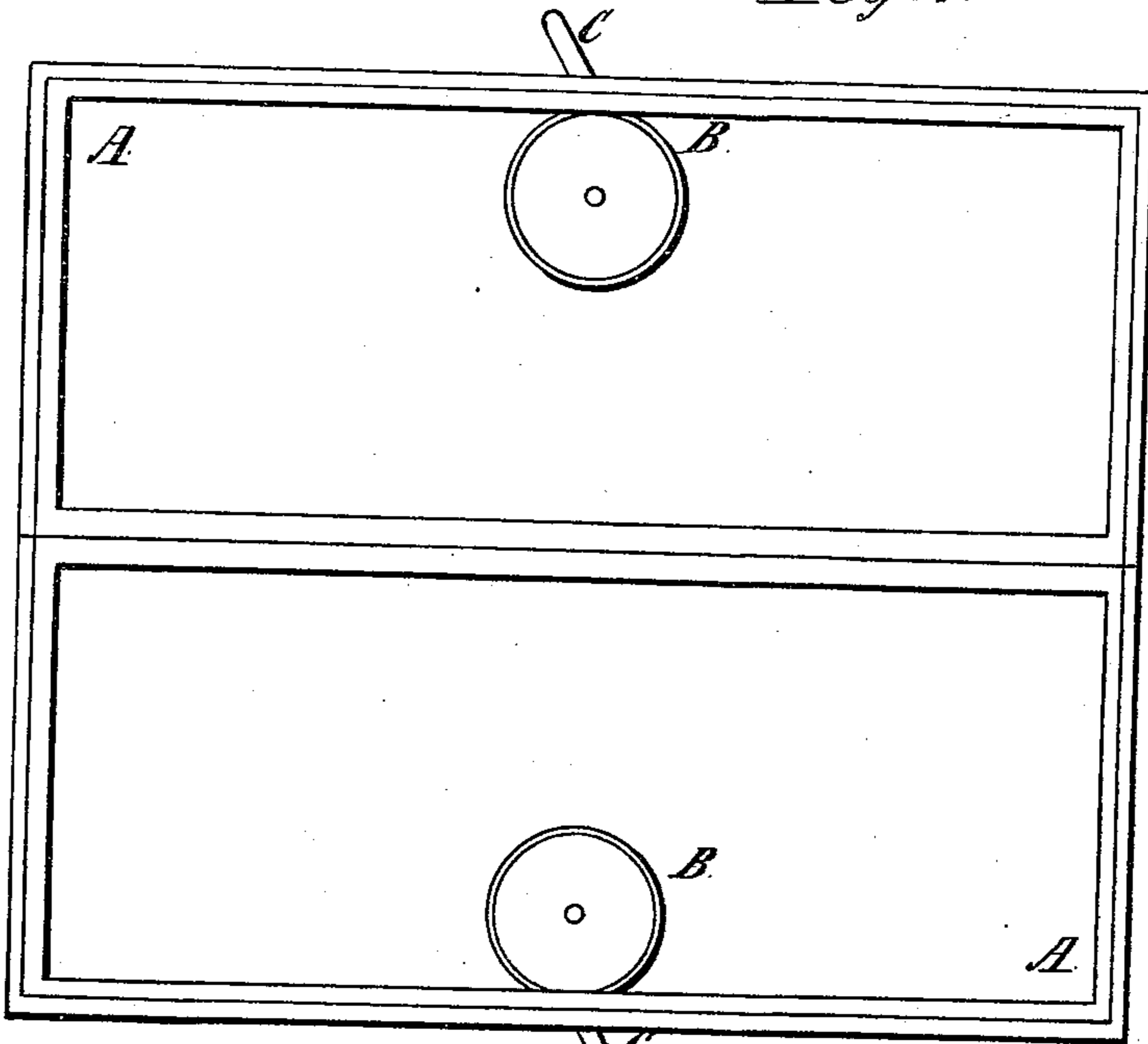


*N. B. Williams,*  
*Game Board.*

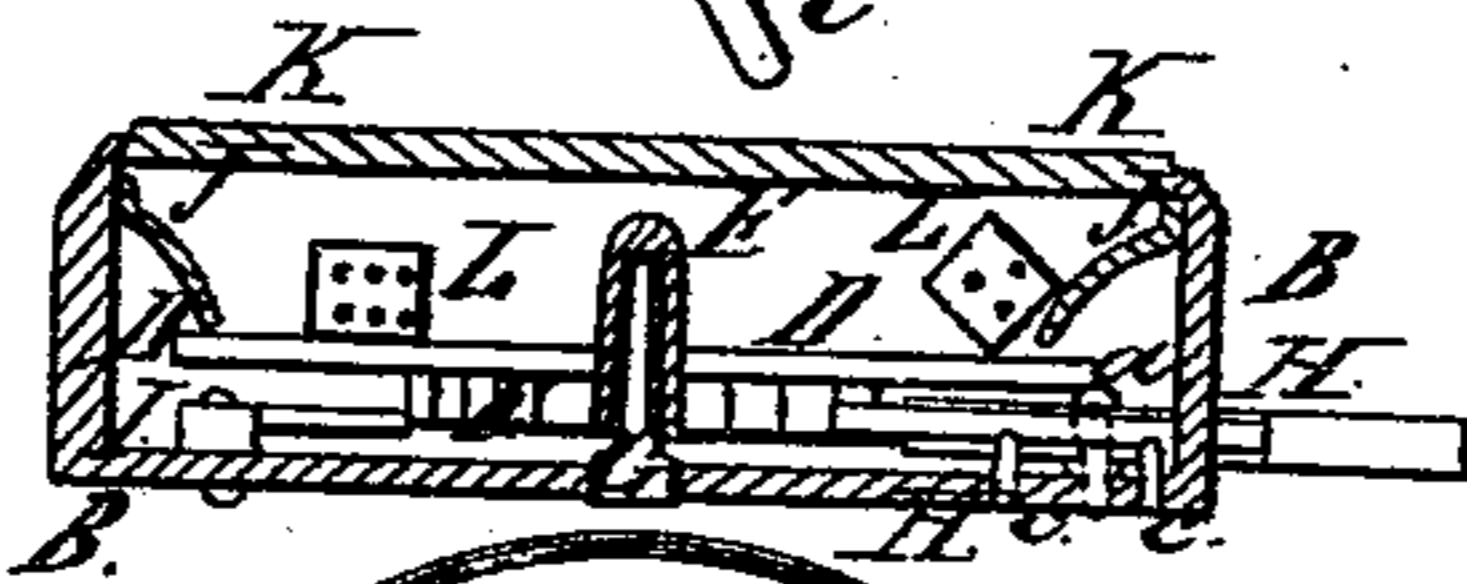
No. 87,825,

Patented Mar. 16. 1869.

*Fig: 1.*



*Fig: 3.*



*Fig: 2.*



*Witnesses:*

Geo Clarke  
William A. Houghton

*Inventor*

W. B. Symonds

# United States Patent Office.

N. BANGS WILLIAMS, OF NEW YORK, N. Y.

Letters Patent No. 87,895, dated March 16, 1869.

## IMPROVEMENT IN BACKGAMMON-BOARDS.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, N. BANGS WILLIAMS, of the city, county, and State of New York, have made certain Improvements in Backgammon-Boards; and in order that others may understand the nature of my invention, I give the following description of the same, illustrated by the accompanying drawings, and referred to in these specifications, by the letters and figures marked thereon.

The object of my invention is to provide means for throwing or agitating the dice, and producing the changes and combination of the spots thereon, by means of an instrument attached to the leaf of each compartment of the board, so that each player, by simply moving a finger-piece, or lever, can change the dice with greater facility, and without the disagreeable noise and rattling which attend this part of the game when the ordinary dice-box and dice are used.

Another part of my invention relates to the construction of the instrument itself, whereby the positions of the dice are most positively and effectually changed, and the motion of the mechanism readily stopped, to note the result, and this without shock or undue wearing of the parts, or a liability of their so locking, or "bringing up," as to make a repetition of manipulation necessary in producing the successive throws, or plays of the dice.

### Description of Drawings.

Figure 1 is a top view of a backgammon-board, opened for play.

A A are the two leaves of the board.

B B are the instruments for making the throws, or plays of the dice.

O O are two levers, or finger-pieces, for producing the movement. These project through the edges of the board, or may be placed in any other convenient position inside.

This figure merely gives the position of the instruments, without any details, these being shown in figs. 2 and 3.

Figure 2 is a top view of the instrument, detached, the parts being represented sufficiently cut away to disclose the mechanism.

B B is a box, made of any suitable material, which is firmly secured to the leaves of the board in any convenient manner, the depth of the same being seen in fig. 3.

Inside this box is a wheel, or disk, D, hung in the same manner as the card of a mariners' compass, upon the hollow centre F, and raised far enough above the bottom of the box B B to allow room for the ratchet-wheel E (which is affixed to the under side of the disk D) to run freely, and also to give room for the lever O and the spring I.

The lever O, which gives rotation to the disk by

locking into the ratchet-wheel, it will be perceived, does not terminate at this end as a simple pawl, and does not touch the wheel in its back and forward movement at all, but is provided with a leather spring, H, affixed to one side of the lever, and projecting beyond it enough to lock into the teeth of the ratchet-wheel, so that when the lever is drawn back, this spring will yield, and allow the lever to move without any obstruction, even if the teeth of the wheel should not be in position to allow it to enter between them. In this case, the disk will receive an impulse, and turn in a contrary direction from that which takes place when the lever is released from the finger, and left to the action of the spring I; and not only does this peculiar construction of the lever rotate the disk in both directions, but allows it to be stopped without shock or wearing of the parts, by simply drawing the lever a little way back, till the feather-spring H touches the ends of the teeth. This method of construction allows the impulse to the wheel to be continued through a larger space than can be done with a simple pawl, because when this is used, the end of the pawl cannot lock deeply without a continual liability to lock, or bring up, on retracting the lever; consequently the smallest amount of wear, either of the teeth or pawl, causes the instrument to be inoperative.

L L are the dice, which lie upon the upper surface of the revolving disk D.

J J is an inclined toothed rim, which fits inside the box, or case B B, and projects over the edge of the revolving disk, the upper row of dotted lines showing the edge of the disk.

The inclination of the toothed rim is shown in fig. 3, at J J.

The dice are thrown, by the rotation of the disk, into the teeth of the rims J J, and are thus more effectually changed, as to their positions, than they would otherwise be.

a is the pin, upon which the lever O turns as far in either direction as is allowed by the stop-pins c c.

It should be mentioned that the box B is slotted, or cut away, so as to allow the vibratory movement of the lever.

The whole of the mechanism is covered (as also the dice) by the glass K K, which is seen in fig. 3.

G, in fig. 3, is the pivot upon which the ratchet-wheel and disk turn.

The other parts of this figure are referred to by the same letters as in fig. 2, and require no further notice here,

Figure 3 being merely a sectional view of the parts given in top view in fig. 2.

I am aware that automatic devices for throwing, or changing dice, detached from a board, have long been known, one of which consists of cylindrical dies, turning on a pivot, and impelled by a ratchet-wheel and pawl.

Another, (a French invention,) displays the dice upon a flat disk, with ratchet-wheel, simple pawl, spring, and toothed rim, same as I have shown. Therefore I do not claim either of these particular parts, nor an automatic dice-thrower as a whole; but

What I do claim, is—

1. The combination of an automatic dice-thrower with a backgammon-board.

2. The lever C, with the feather-spring H.

3. This, in combination with the other parts of the mechanism described, all made and operating substantially as described, or their mechanical equivalents.

N. BANGS WILLIAMS.

Witnesses:

GEO. J. CLARKE,

WILLIAM A. HOUGHTON.