

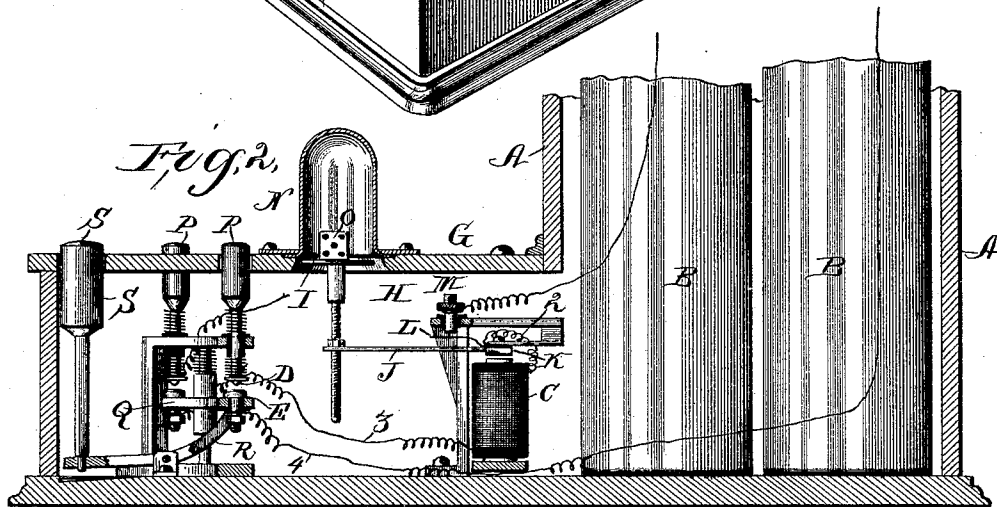
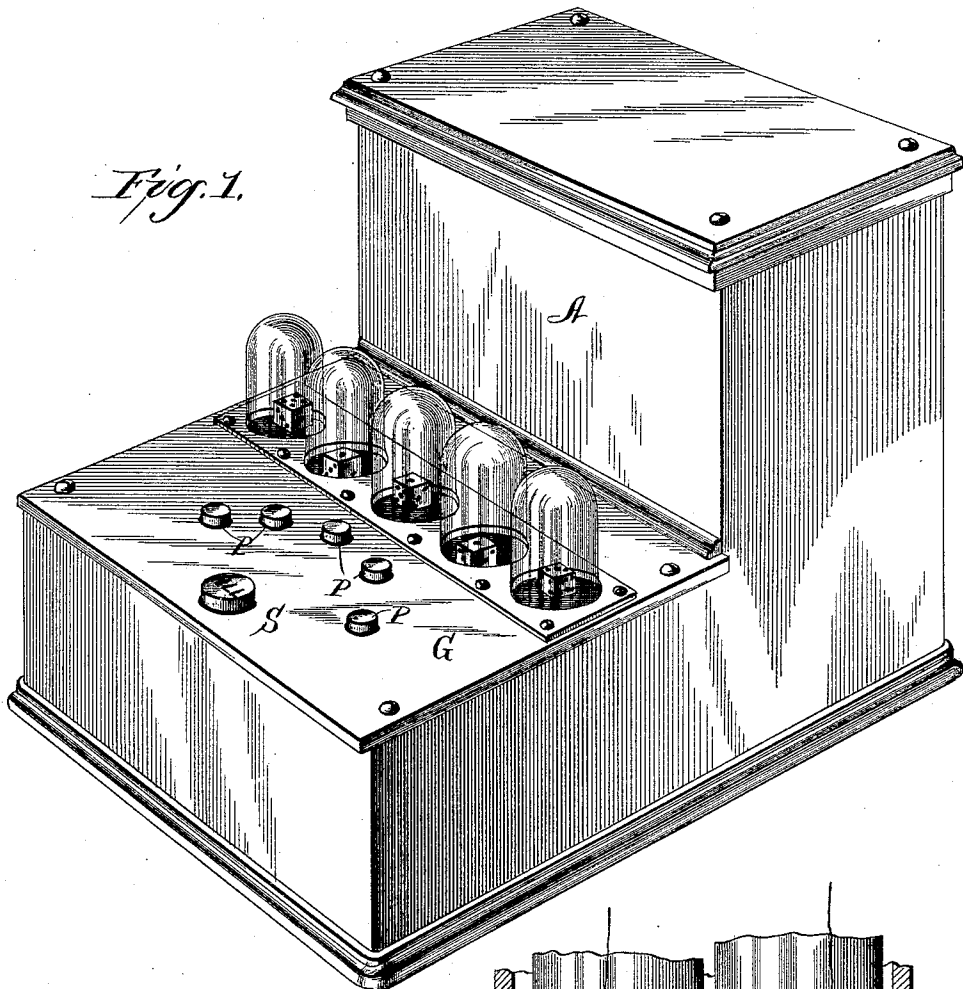
(No Model.)

2 Sheets—Sheet 1.

S. N. JOHNSON.
GAME APPARATUS.

No. 483,115.

Patented Sept. 20, 1892.



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Fig. 3.

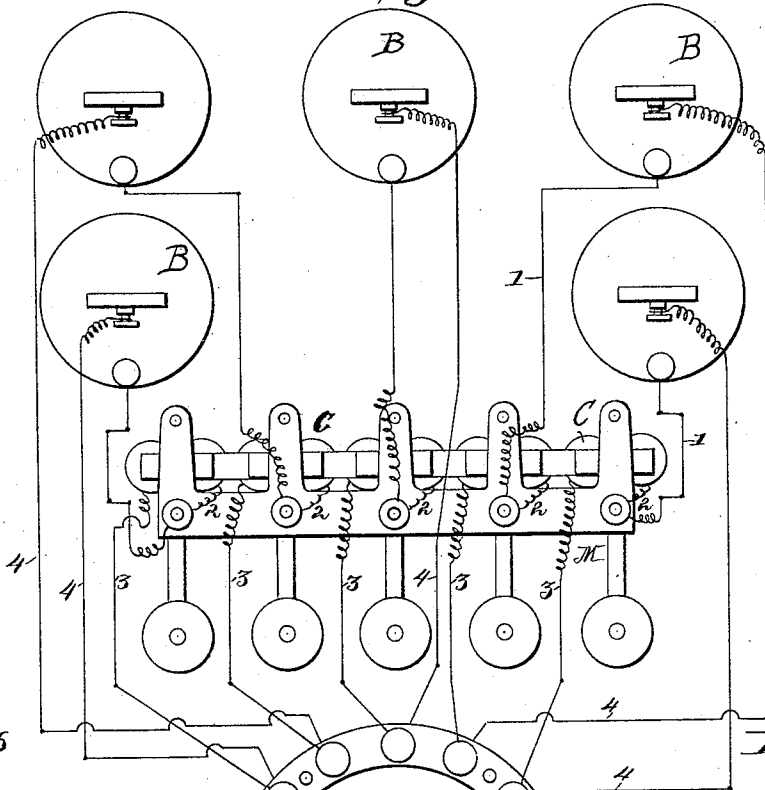


Fig. 6.

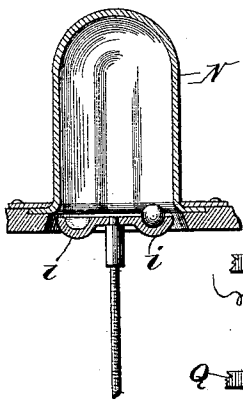


Fig. 4.

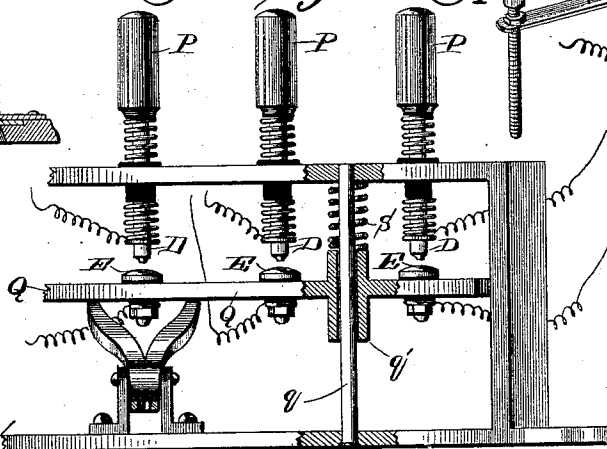
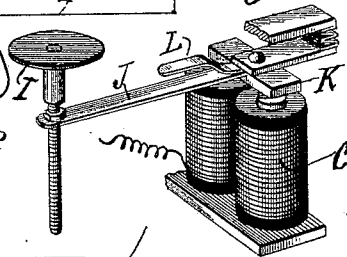


Fig. 5.



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UNITED STATES PATENT OFFICE.

SIDNEY N. JOHNSON, OF CHICAGO, ILLINOIS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE MARION MANUFACTURING COMPANY, OF SAME PLACE.

GAME APPARATUS.

SPECIFICATION forming part of Letters Patent No. 483,115, dated September 20, 1892.

Application filed October 5, 1891. Serial No. 407,687. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY N. JOHNSON, a citizen of the United States, residing in the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Game Apparatus, of which the following is a specification.

This invention relates to improvements in game apparatus, but more particularly to that class in which the manipulation or actuation of the game device is accomplished by means of electricity, and has for its object to have one or more (preferably a series of) devices each capable of representing various points of the game and adapted to be agitated within a limited space for the purpose of causing it to assume various positions during its vibration or agitation with liability when such agitation ceases of coming to rest in a position different from the position which it occupied before such agitation took place, and thus indicating points varying from the points formerly indicated.

In a more limited sense the object of my invention is to have one or more (preferably a series of) cubical or prismatic bodies confined, yet capable of agitation within the limits of their confinement, so that when coming to rest after agitation the different faces of the cubical or prismatic bodies may appear uppermost in such order as chance and the degree of agitation may determine, the end to be attained in the game being to bring like faces of each body uppermost in a given number of agitations.

Another object is to have the apparatus so arranged that the game devices may be agitated singly and independently of each other or all simultaneously by a single manipulation. These objects are attained by the devices illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of a game apparatus embodying my invention; Fig. 2, a central vertical section thereof; Fig. 3, a diagrammatic view of the apparatus, more clearly illustrating the arrangement of the electric circuit; Fig. 4, a detail sectional elevation of the circuit-closers; Fig. 5, a detail perspective view of the electro-magnet and the agitator operated thereby; and Fig. 6 is

a detail view of a modification hereinafter described.

Similar letters of reference indicate the same parts in theseveral figures of the drawings. 55

Referring by letter to the accompanying drawings, A indicates a box or casing of any suitable shape and dimension and containing a battery B, a series of electro-magnets C, 60 and a corresponding series of circuit-closers D and E, one for each electro-magnet. One portion of the casing that is horizontal—say the portion G—constitutes a table, in which is provided a series of openings or perforations H, corresponding in number with the 65 electro-magnets, and in each of which works or vibrates a disk I, adjustably secured to the free end of a spring-actuated armature-lever J, to which is secured the armature K of the 70 corresponding electro-magnet C, to which lever is also secured a spring-tongue L, normally in contact with a contact post or point M, which devices act as automatic circuit makers and breakers in substantially the 75 same manner as like parts operate in an electric buzzer or bell.

Over the openings H in the table fit corresponding hemispherical-like caps or covers N, preferably formed of glass and secured to 80 the table in any suitable manner, which casings, while they serve to confine the cubical or prismatic bodies O when agitated by the disks I, at the same time permit these objects to be observed by the players of the game. 85

The circuit-closers D also work through perforations in the table (or they may be at any other part of the casing) and terminate in or are provided with push-buttons P, by which they may be depressed so as to close 90 the electric circuit through their respective electro-magnets by making contact with the circuit-closers E. It will also be seen that the circuit-closers E are movable, being mounted upon or carried by a plate Q, which 95 is in turn mounted upon the free end of a lever R, thus constituting the closers E floating closers. With the opposite end of this lever R is connected a push-button S, so that when said button is depressed all of the circuit-closers E will be simultaneously elevated 100 into contact with the circuit-closers D, and

thus simultaneously close the circuits through all of the electro-magnets.

If desired, the bar Q, carrying the closers E, may be guided in its movement by means of stationary uprights *q*, which pass through hubs or sleeves *q'*, preferably formed integral with the bar Q, the arrangement being the same at both ends of the bar, but that at one end only being shown in the drawings. The force of gravity in returning the bar to its lower position may be assisted by means of a coil-spring *s*, sleeved on each of the uprights *q* above the hubs or sleeves *q'*, and such springs of course also hold the push-button S in its normal or elevated position. It will thus be understood that while either one of the push-buttons P may be manipulated independently of all the others, which manipulation will result in the actuation of only the disk carried by the armature-lever of the electro-magnet through which the circuit is closed, at the same time by the manipulation of the single push-button S the circuits through all of the electro-magnets may be simultaneously closed, and hence all of the cubical or prismatic bodies may be simultaneously agitated. For convenience in the manufacture of the device I prefer to insulate all of the circuit-closers D and E from their respective supports.

In the drawings I have shown a separate battery for operating each electro-magnet, using in such case small dry batteries; but obviously a single battery, either dry or fluid, may be used for operating all of the electro-magnets.

The circuits shown in the drawings are the same in each case and may be readily traced, beginning at the battery with the wire 1, leading to the contact post or point M, thence from spring L, (see Fig. 2,) through wire 2, to the electro-magnet C, from thence by wire 3 to the circuit-closer D, at which point a break in the circuit occurs, thence by wire 4, from the circuit-closer E, back to the battery. In case of a single battery being used, instead of separate batteries for each circuit, as shown in the drawings, all of the circuit-closers E would be connected with one pole of the battery and all of the contact-posts M would be connected with the other pole of the battery. It will thus be seen that the circuit through any one of the electro-magnets may be closed by bringing the circuit-closers of the circuit in which the particular magnet is contained in contact with each other, the effect of which is to energize the magnet, causing it to attract its armature, which, in moving toward the pole of the magnet, actuates the armature-lever, and consequently the disk carried thereby, as well as the contact-spring L, which latter by such action is moved away from, so as to break contact with the post M, and hence open the circuit at that point, thus demagnetizing the magnet. The armature is then instantly withdrawn from the pole of the magnet by its actuating-spring, whether such

spring is due to the resiliency of the metal of which the armature-lever is composed or to other well-known spring devices which moves the spring L back into contact with the post M, thus re-establishing the circuit and again energizing the magnet, which again attracts the armature and again breaks the circuit in the manner before described, which operation will be rapidly repeated as long as the circuit-closers D and E are maintained in contact with each other, this operation being substantially the same as that of the ordinary electric bell or buzzer.

The rapid vibrations of the armature-lever being imparted to the disks I, carried thereby, will rapidly agitate and toss the cubical or prismatic bodies O about within their glass confines or casings until the circuit is broken, when the body will come to rest upon the disk with one face thereof uppermost. Each face of the object will have thereon a sign of some character—such as a letter, figure, picture, or other device—a set of dice being illustrated as a familiar and comprehensive example of cubical bodies, having signs upon all their faces.

Of course all the dice or other cubical or other shaped objects of the series will be alike and have like signs on their several faces, and the purpose of the game is to bring the like faces of all the dice or other objects uppermost in a given number of agitations, either by first agitating all of them simultaneously and then afterward successively agitating the odd ones or in any other manner the ingenuity of the players may suggest.

While I have shown and described the agitating-disks as electrically operated, I do not desire to limit my invention to such mode of operation, for the disks might be operated mechanically as well as electrically by the push-buttons and the intermediary of an ordinary escapement-wheel and pallet, and thus accomplish the same objects in a manner too well-known to require further description and illustration. It is also quite obvious that the cages or casings N might be of any other shape than that shown, and they might also be constructed of wire-netting or even of some material quite opaque. In the latter event, however, they would of course be removable, so as to disclose to view the positions of the game devices or cubes. I furthermore wish it to be understood that my invention contemplates the use of a disk or support other than a mere flat plate, as the same may be provided with pockets or sockets *i*, and, if desired, a spherical object *o*, placed thereon, as shown in Fig. 6, so that the vibration of the disk or support would dislodge the object from one pocket and probably cast it into another, the pockets of course having predetermined values.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a game apparatus, the combination of

a series of independent dice supporting and agitating disks or devices and a corresponding series of independent push-buttons for operating said dice supporting and agitating devices, said push-buttons being arranged in the vicinity of each other, whereby they may be pushed simultaneously or individually, substantially as set forth.

2. In a game apparatus, the combination of a series of vibratory disks or supports, each having a loose body confined thereon, electric buzzers upon whose armature-levers said disks are respectively supported, and a series of independent contacts for closing the circuit through said buzzers independently, plurally, or collectively, substantially as set forth.

3. In a game apparatus, the combination of a series of vibratory disks or supports, each having a loose body confined thereon, devices for vibrating said disks, and means for actuating said devices simultaneously, substantially as set forth.

4. In a game apparatus, the combination of a series of vibratory disks or supports, each having a loose body confined thereon, electric buzzers connected with said disks for vibrating the same, and a single contact for closing the circuits through all of said buzzers simultaneously, substantially as set forth.

5. A game apparatus comprising a series of vibratory disks, each having a loose body rest-

ing thereon and adapted to be agitated thereby, an inclosing cage or shell for confining each of said bodies to certain limits, a device for vibrating each of said disks separately, and a device for vibrating two or more of them simultaneously, substantially as described.

6. A game apparatus comprising a series of vibratory disks or supports, each having a loose body confined thereon, electrical devices for vibrating said disks or supports, a series of contacts for closing the circuit through said electrical devices independently, and a contact for closing the circuit through two or more of said electrical devices simultaneously, substantially as described.

7. A game apparatus comprising a series of vibratory disks or supports, each having a loose body confined thereon, an electro-magnet for causing the vibration of each of said disks, a series of floating circuit-closers E, corresponding in number to the number of said magnets, independently-movable push-buttons having circuit-closers D, one for each of said closers E, and a lever for simultaneously moving all of said closers E against the closers D, substantially as described.

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