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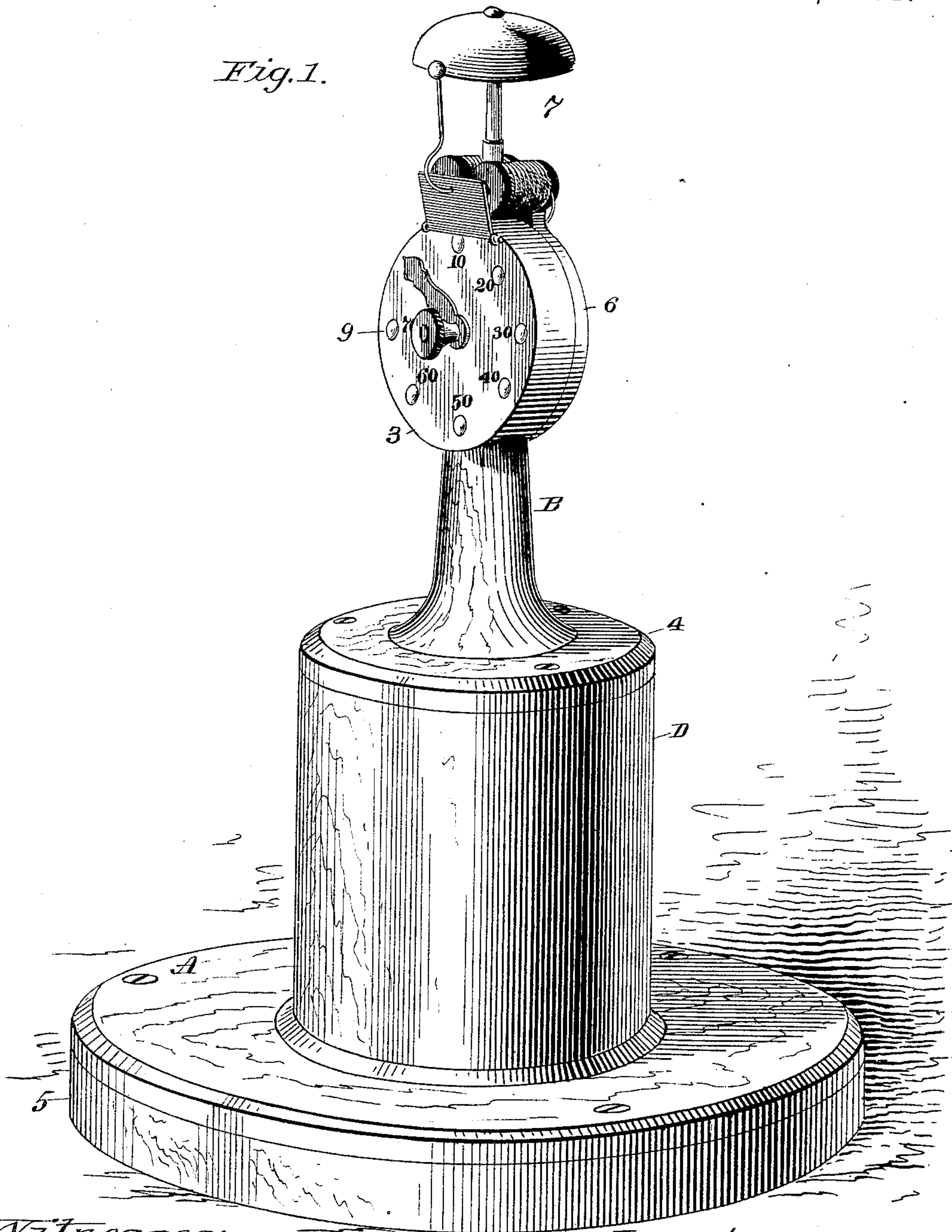
4 Sheets—Sheet 1.

W. L. GATES.
ELECTRIC PARLOR GAME.

No. 461,076.

Patented Oct. 13, 1891.

Fig. 1.



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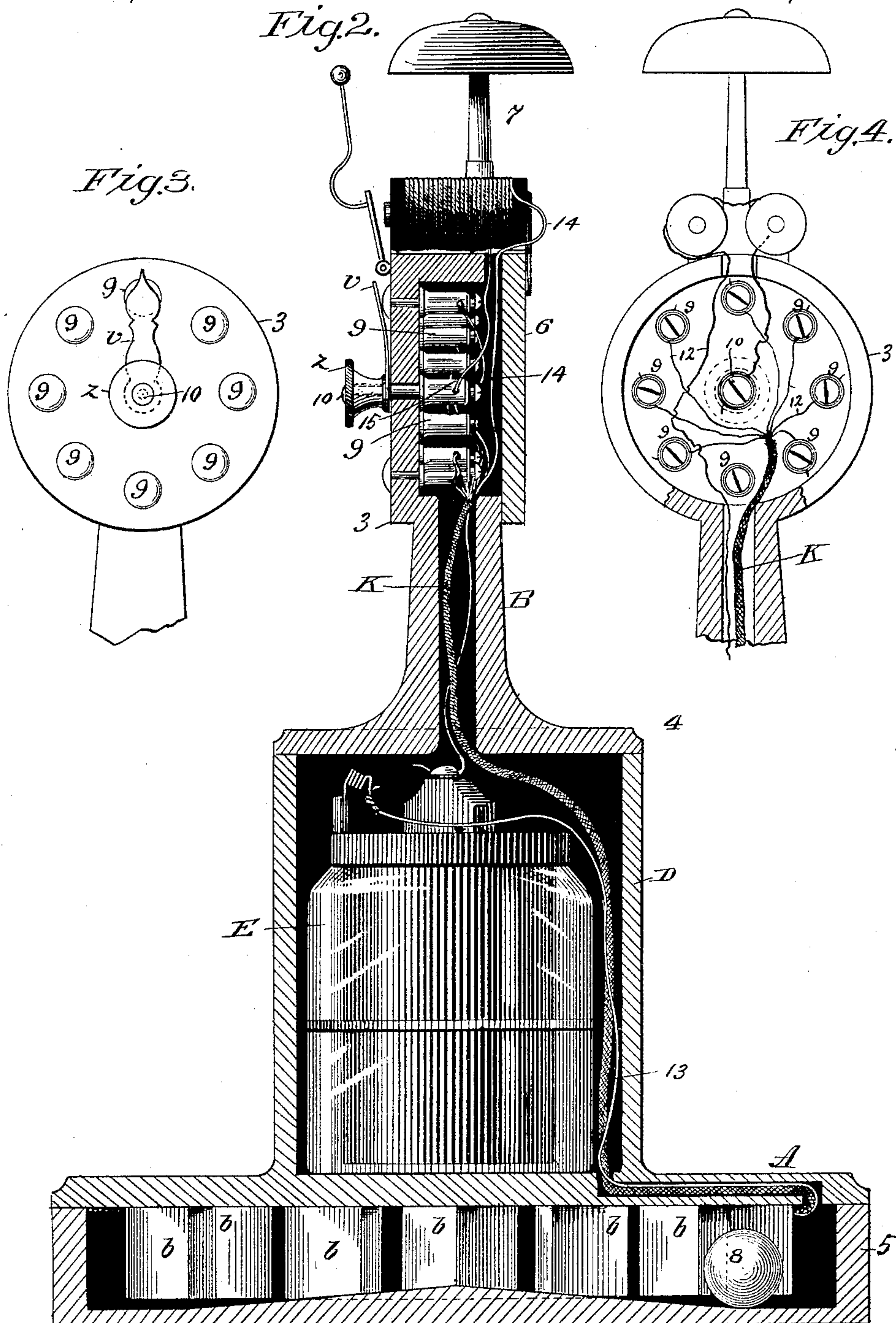
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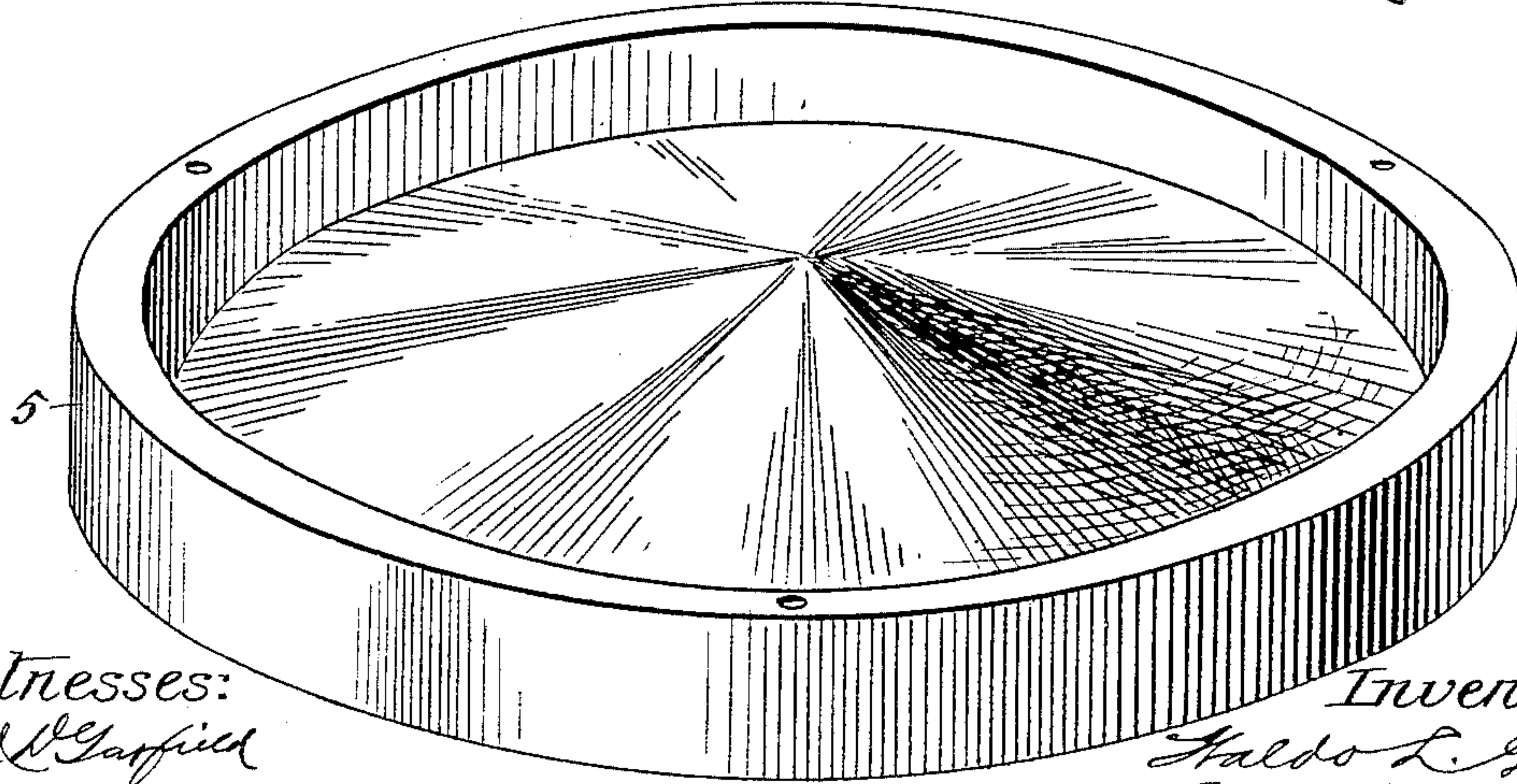
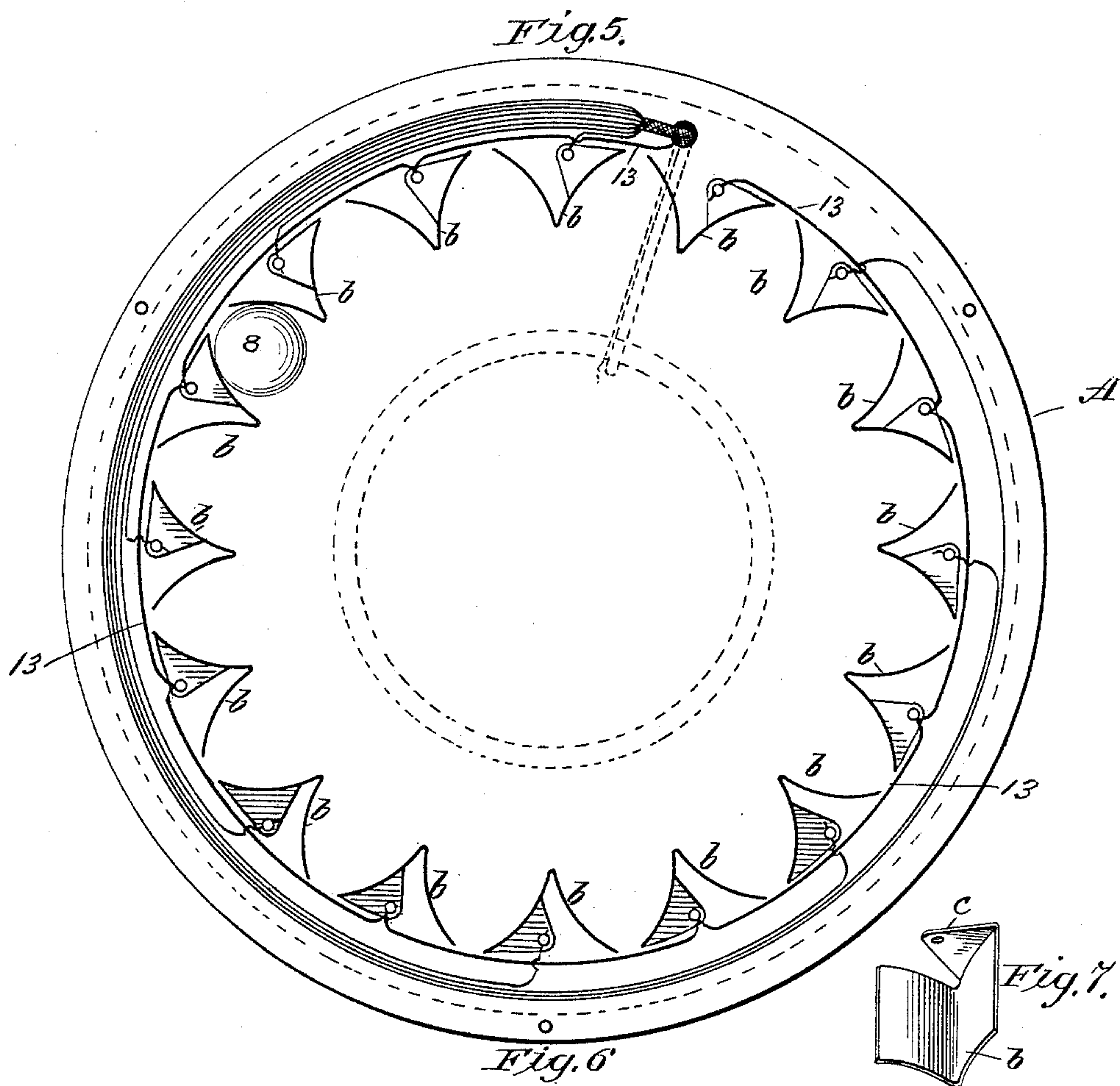
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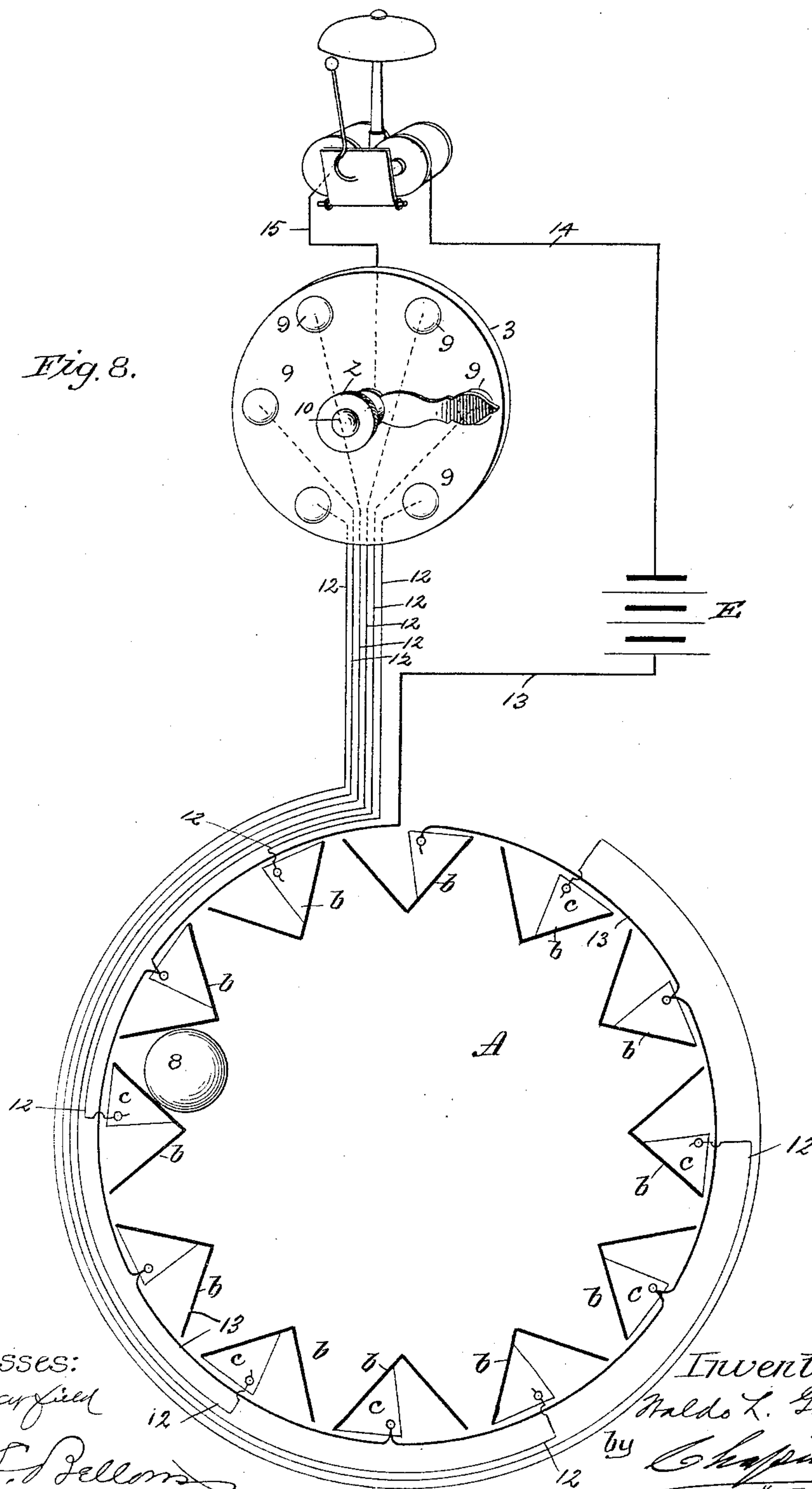
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Fig. 8.



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UNITED STATES PATENT OFFICE.

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ELECTRIC PARLOR-GAME.

SPECIFICATION forming part of Letters Patent No. 461,076, dated October 13, 1891.

Application filed July 19, 1889. Renewed March 10, 1891. Serial No. 384,409. (No model.)

To all whom it may concern:

Be it known that I, WALDO L. GATES, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Electric Parlor-Games, of which the following is a specification.

This invention relates to games for parlor amusement and to improved electrical apparatus for conducting the same; and the invention consists in the combination of a battery, means for indicating certain electric signals, and peculiarly-constructed circuit-connecting devices, all as hereinafter fully described, and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a perspective view of a complete apparatus for operating games for parlor amusement, and Fig. 2 is a vertical section of said apparatus (showing certain parts thereof in side elevation) illustrating my improvements. Fig. 3 is a front elevation of the head of said apparatus, and Fig. 4 a rear elevation of the same with the cover removed and showing an electric signal-bell thereon. Fig. 5 is an inverted plan view of the base of the apparatus with its inclosing box removed. Fig. 6 is a perspective view of said inclosing box. Fig. 7 is a perspective view of a detail part below described. Fig. 8 is a diagram illustrating clearly the said circuit-connecting devices and the circuit-wires connecting the same with said signaling apparatus and a battery.

In the drawings, A indicates the base of the apparatus, which is preferably of circular form for convenience and economy of manufacture and is made of wood or similar non-conducting material, the said base being surmounted by a circular standard B, the lower portion D thereof being hollow, preferably, to contain within it a battery-cup E. The preferable description of battery is that known as the "Leclanché," for the cup of that is ordinarily hermetically closed, and hence permits of moving the same with the inclosing standard for the purpose of operating the device, as below set forth, without danger of spilling the fluid contained in said cup. If

desired, a dry battery may be used in place of the above-mentioned one, and for all practical purposes in operating the device the battery may be located outside the apparatus and connected therewith by proper flexible conductors, as indicated in Fig. 8. To the upper end of said hollow portion D of the standard B is secured the hollow head 3 of the apparatus, and on the lower end of the standard-section bearing said head is formed or fixed a cover 4, which is secured on the upper end of said standard portion D by suitable screws, as shown, or by other suitable means. A cover 6 is secured to the rear side of said head. A circular box 5, likewise of non-conducting material, is secured under said base A by screws, as shown, or in any other suitable manner, which may have a bottom whose inner surface is of convex form, as shown in Figs. 2 and 6, for the purpose below set forth, or it may be flat, as indicated in the diagram Fig. 8. An electric signal-bell 7 is attached to the upper end of said standard B.

The base A has secured on its under side, preferably in a circle near its border, a series of electric connection plates or pieces *b*, said plates being so formed as to provide a lip *c* (see Fig. 7) thereon, extending in the plane of the under side of said base A, said lips serving as a means for conveniently attaching said plates or pieces to said base by means of screws or similar devices passing through them, and also as a convenient point on said plates with which to make electrical connections, as below described. The said connection-plates *b* hang vertically under said base, as shown in Fig. 2, and are of such form as contributes to produce between them, when so arranged, a series of openings to receive a movable unattached switch, as below described. In Fig. 6 is shown in perspective view the said circular box 5, which is attached under the base A of the standard B, and in Fig. 2 said box is shown in operative position under said base, and the bottom of said box there shown is of convex form to the end that there may be such an incline downward from the center toward the border of said box, where said connection-plates are arranged, as

will cause a spherical metallic circuit connector or switch 8 (shown in Figs. 2, 5, and 8) to roll from a position near the center of said box toward the borders thereof and lie by gravity between two of said connection plates or pieces, as shown in said figures. The said spherical switch-connector 8 consists of a metal ball, preferably of copper or any other good conductor. It is obvious, however, that the said ball 8 may be made to roll toward either side of the box 5 and between the said connection-pieces there arranged by tilting the standard B from side to side even were the bottom thereof not made convex, as described; but it is more convenient to operate the apparatus and the said ball has a better contact with the said connection-pieces when the bottom of the box is made convex. The electric signaling apparatus arranged in said standard B and connected with the said battery E and with said connection-pieces *b* consists of a series of metallic pins 9, whose ends project slightly beyond the front side of the head of the said standard, (said head being designated by 3,) said pins being electrically connected by the conducting-wires 12 (see Fig. 8) with certain ones of the said connection-pieces *b* under the said base A, as clearly illustrated in Fig. 8; or, in other words, said wires are connected with each alternate connection-piece, as there shown, and the connection-pieces between each of said two alternately-connected pieces are connected by the conducting-wire 13 with one pole of the battery E. The said conducting-wires 12, which are shown in Fig. 2 as composing a conductor-cable K, of ordinary construction, are connected to the rear ends of said metallic pins 9 in the head of the standard, the diagram Fig. 8 showing in dotted lines on the face of the head 3 the general course of said connections and such of the latter as are capable of being there shown, are illustrated in Fig. 2, and Fig. 4, which is a rear view of said head 3 with its cover 6 removed, shows more clearly the said connections. The said signal-bell 7 has its electro-magnet connected with one pole of said battery by the conducting-wire 14, and from said magnet a conducting-wire 15 is taken and has the opposite end thereof electrically connected with the central pin 10 in said head 3, said pin 10 being rigidly fixed in said head and having on its outer end a head *z*, on the inner end of which is rigidly fixed an elastic sheet-metal arm *v*. The said metallic head *z* and arm *v* are fitted upon the end of said pin 10 with sufficient closeness to constitute a good electrical contact; but the head and arm may be turned with the fingers to bring the outer end of said arm in electrical contact with the outer end of any one of the said pins 9 therein. From the above description it will be seen that the said arm *v* is in electrical connection with one pole of the battery E through the line comprised by the conductors 14 and 15, and said signal-bell and said arm in effect constitute a rotating switch

to close a circuit by contact with some one of the said pins 9, as above set forth.

As shown in Fig. 1, figures are placed on the face of the head 3 near each of the said pins 9, denoting different numbers, for the purpose of illustrating the manner of utilizing the within-described apparatus for parlor amusement, as below described, and the operation of the within-described improvements is as follows:

The battery, as indicated either in Fig. 2 or Fig. 8, has one pole thereof, as described, connected with the central pin 10 of the head through the electro-magnet of the signal-bell, and its opposite pole is connected with certain ones of the said connection plates or pieces *b*, as before described, and hence it will be seen that when the spherical connector or switch 8 is lodged between any two of the said connection-pieces, as shown in Figs. 5 and 8, it forms an electric connection between one pole of the battery through the conductor 13 and between the opposite pole of the battery through some one of the conductors 12 and pins 9, which becomes active when the said arm *v* is brought into electrical contact with the end of the pin 9 which forms such connection, and when such connection is made it causes the signal-bell to ring and indicate such connection. When said arm *v* is turned as just described and is brought into contact with one after another of said pins 9, and finally with the pin thereof which is in the active electric circuit, one of said numbers on the face of the head 3 may be used to indicate such pin. Thus as a means of parlor amusement the entire standard and base of the apparatus, as illustrated in Figs. 1 or 2, is tilted from side to side to cause the spherical switch-connector 8 to roll to some position in the base of the apparatus and become lodged between some two of the said connection-pieces *b*, and then a number of persons may in turn guess the number which shall be rung by the alarm-bell when the arm *v* is turned around on the face of the head 3 and shall be brought into electrical connection with one of said pins 9, as above described, and the number so rung will be indicated by the figures on the face of the head 3 and the correctness of the guess be thereby determined.

The within-described electrical circuit-connecting devices, which are operated by means of the said spherical rolling switch, do not of themselves constitute the subject-matter of this application, but form the subject-matter of another application which is filed simultaneously with this under date of July 19, 1889, Serial No. 318,075.

What I claim as my invention is—

1. In an electrical apparatus for parlor amusement, a battery, a group of connection-pieces, substantially as described, and a series of conducting-pins located at a distance from said connection-pieces, electrical connections between one pole of said battery and

certain of said connection-pieces, an electrical connection between the other pole of said battery and one of said pins, and electrical connections between certain of said connection-pieces and the others of said series of pins, a metallic switch connection which may fall between any two of said connection-pieces, a switch to close a circuit through said first above-mentioned pin and any of the other pins of said series, and an electro-magnetic signaling device located and suitably connected for operation in the circuit adapted to be established by the connections hereinabove set forth, substantially as and for the purpose described.

2. In an electrical apparatus for parlor amusement, a standard having a head and base, substantially as described, a battery contained in said standard, a group of electrical connection-pieces contained in the base of said standard, a series of conducting-pins fixed in said head and electrically connected with said connection-pieces and battery, a switch on one of said pins to form an electrical connection with others of said series of pins, a signaling apparatus, substantially as de-

scribed, electrically connected with said switch, and a switch connection consisting of a moving metallic body which may fall between any two of said connection-pieces, combined and operating substantially as set forth.

3. In an electrical apparatus for parlor amusement, the hollow standard B, having a base A, a hollow head 3, and a signaling device 7 thereon, combined with a battery located in said standard, a group of electrical connection-pieces *b*, attached to said base, a box 5, also attached to said base, having its bottom internally of convex form, a spherical switch connection 8, moving by gravity within said box and acting to electrically connect said pieces *b*, a series of conducting-pins 9, fixed in said head in electrical connection with said battery and connection-pieces *b*, and a rotating switch *v* on said head in electrical connection with said battery and signaling device, substantially as set forth.

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Witnesses:

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