(No Model.) 2 Sheets—Sheet 1.

R. & E. RABIGER.

GAME APPARATUS.

No. 474,188. Patented May 3, 1892.

FIG. 1.

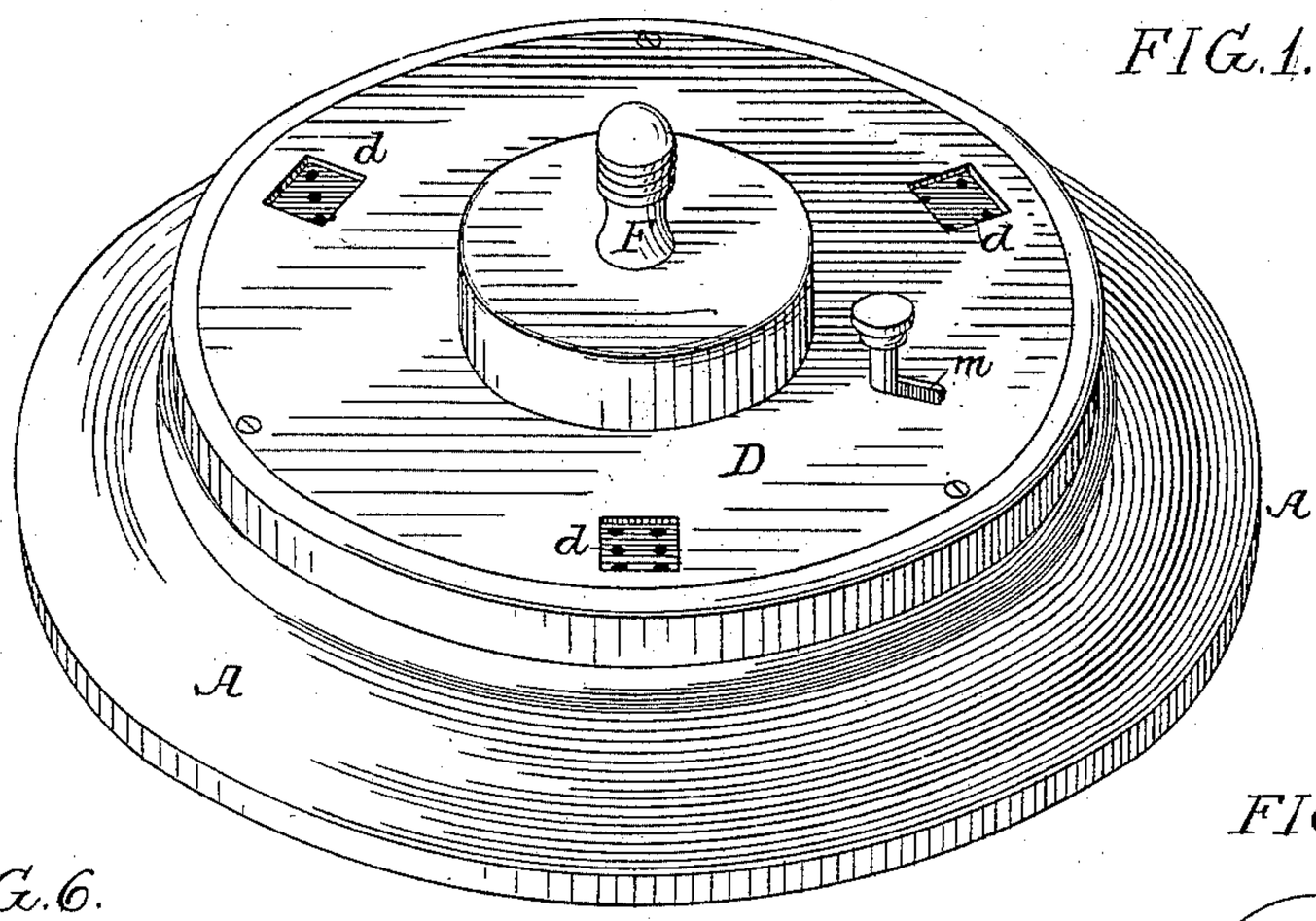


FIG. 6.

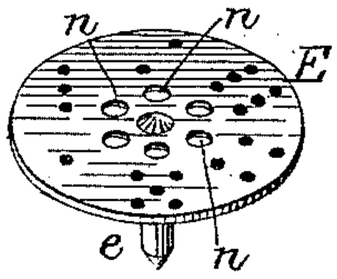


FIG. 7.

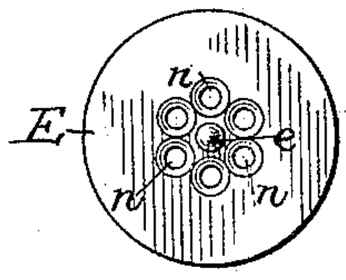


FIG. 5.

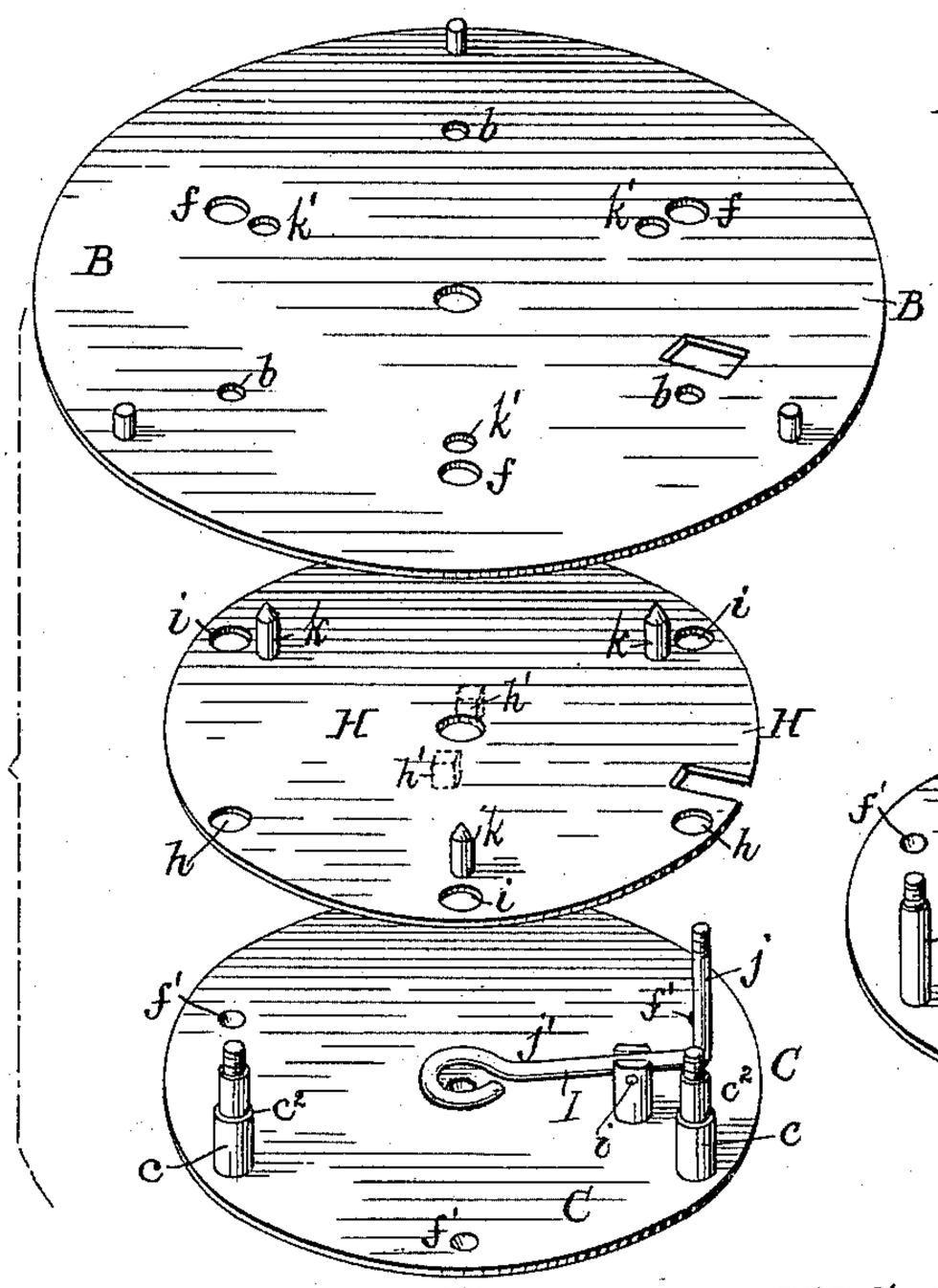


FIG. 8.

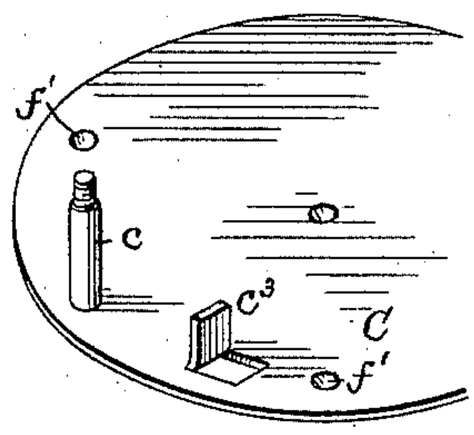
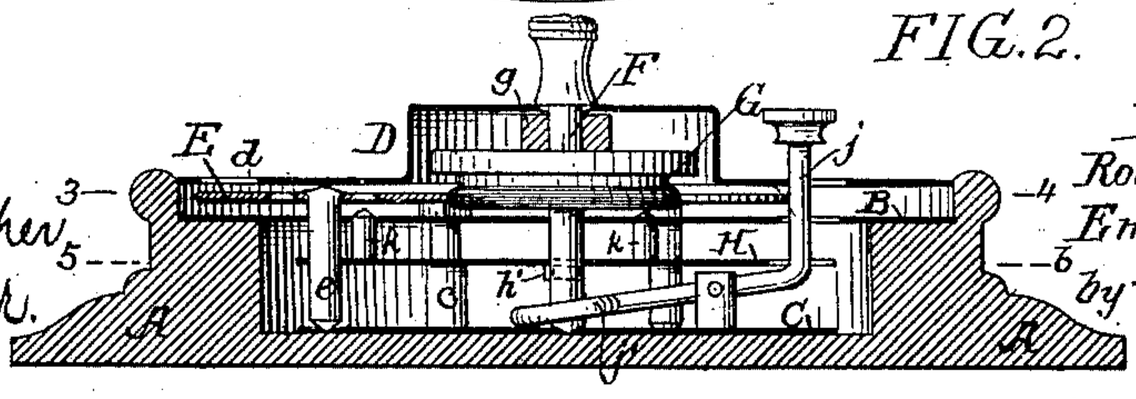


FIG. 2.



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Emil Rabiger
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(No Model.) 2 Sheets—Sheet 2.

R. & E. RABIGER.

GAME APPARATUS.

No. 474,188. Patented May 3, 1892.

FIG. 3.

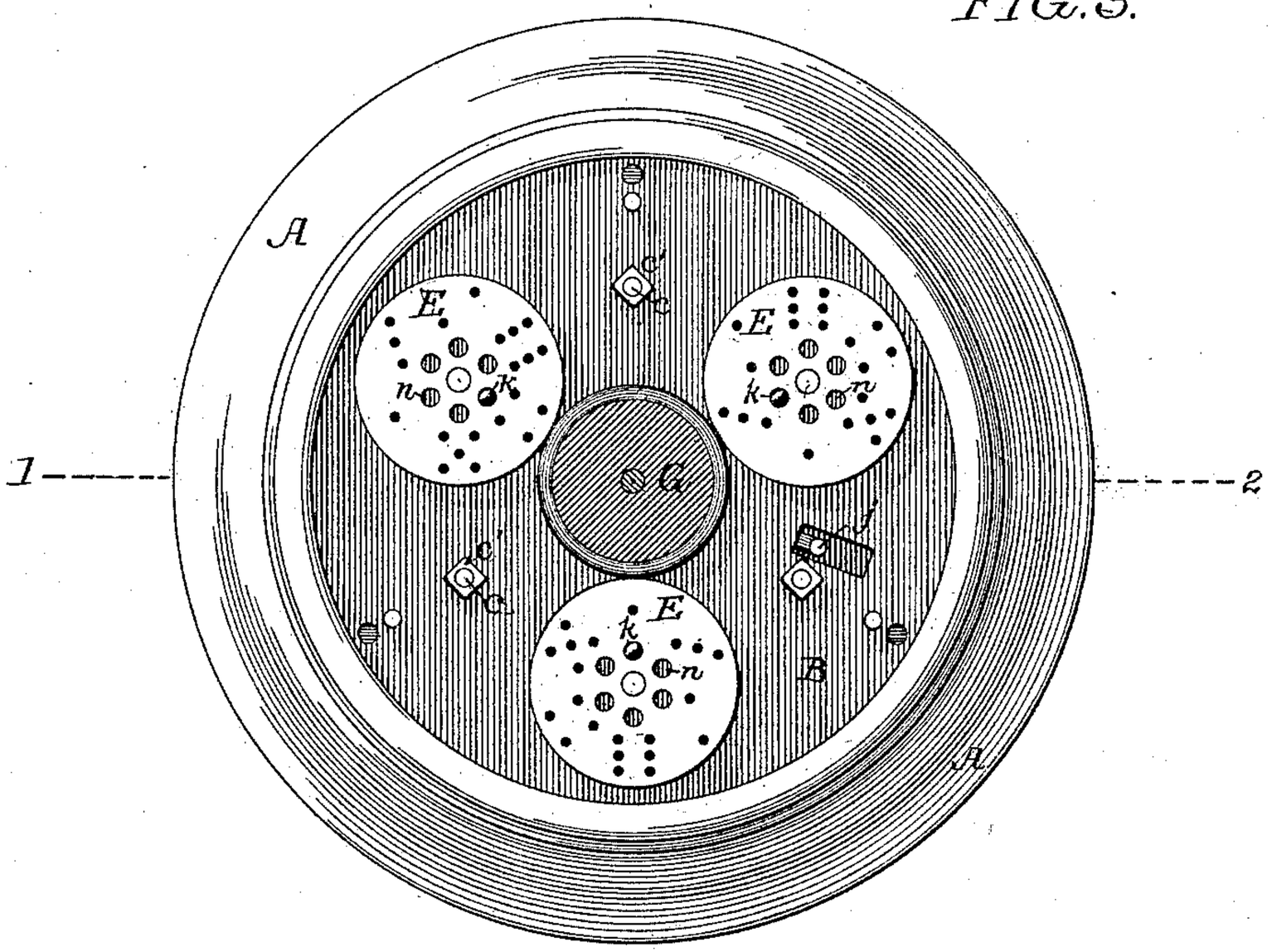
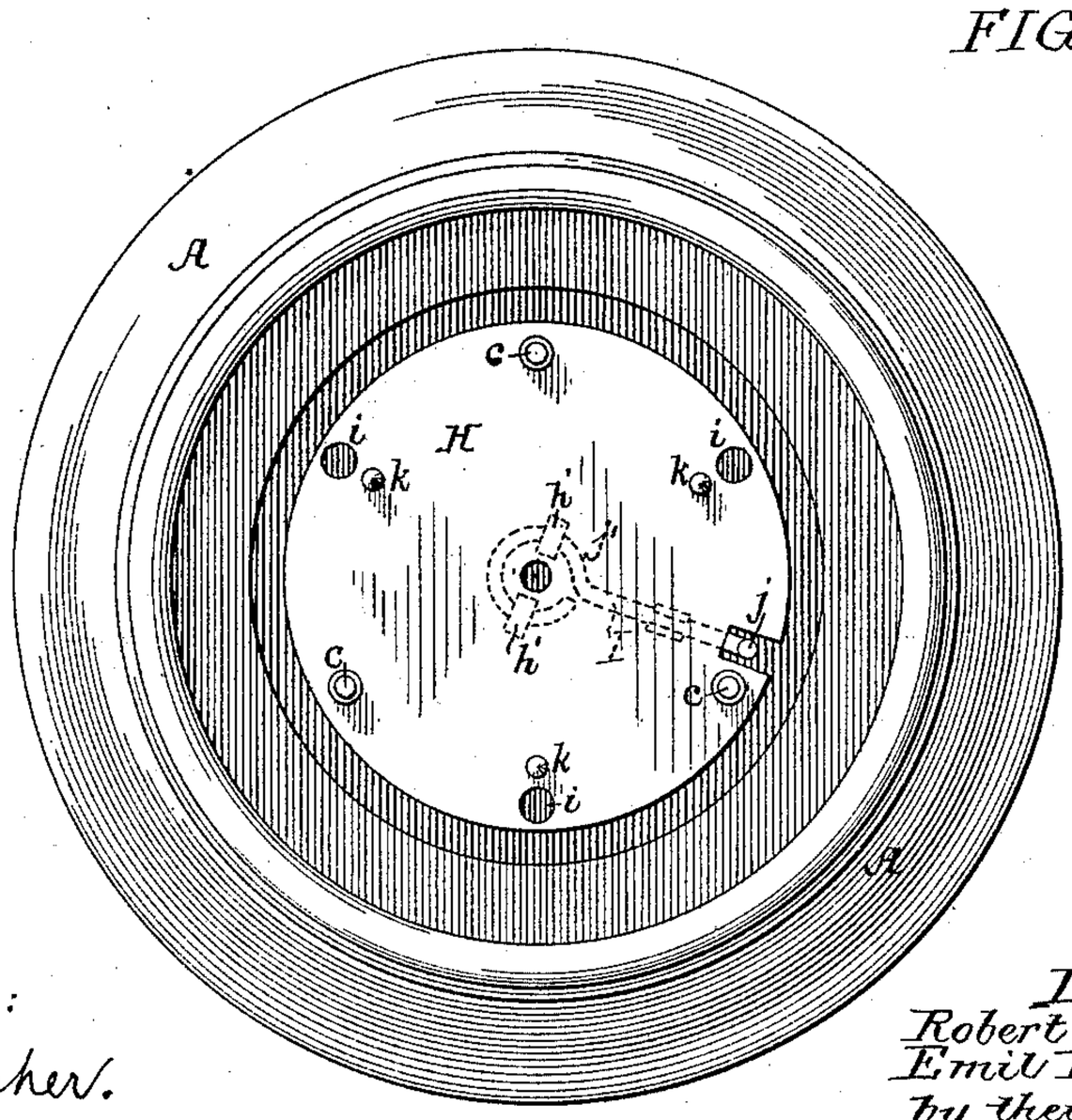


FIG. 4



Witnesses:
R. Schleicher.
Hamilton D. Turner

Inventors:
Robert Rabiger &
Emil Rabiger
by their Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

ROBERT RABIGER AND EMIL RABIGER, OF PHILADELPHIA, PENNSYLVANIA.

GAME APPARATUS.

SPECIFICATION forming part of Letters Patent No. 474,188, dated May 3, 1892.

Application filed June 22, 1891. Serial No. 397,033. (No model.)

To all whom it may concern:

Be it known that we, ROBERT RABIGER and EMIL RABIGER, both citizens of the United States, and residents of Philadelphia, Pennsylvania, have invented certain Improvements in Game Apparatus, of which the following is a specification.

The object of our invention is to construct a mechanical dice game apparatus, the improvements consisting in mechanism whereby disks having appropriate numbers or indicating-marks can be rotated independently of each other by an actuating device common to all and can be simultaneously stopped before they have completed their rotations.

In the accompanying drawings, Figure 1 is a perspective view of our improved game apparatus. Fig. 2 is a sectional elevation on the line 1 2, Fig. 3. Fig. 3 is a sectional plan view on the line 3 4, Fig. 2. Fig. 4 is a sectional plan view on the line 5 6, Fig. 2. Fig. 5 is a detached perspective view of the bearing-plates. Fig. 6 is a perspective view of one of the disks. Fig. 7 is an inverted plan view of one of the disks, and Fig. 8 is a view of a modification of a portion of the device.

A is the recessed base of the device, which may be made of any suitable material, and B is a fixed bearing-plate adapted to the recessed base A, as clearly shown in Fig. 2, C being the bottom-supporting plate secured to the plate B by bolts *c*, which extend through openings *b* in the plate B and are provided with nuts *c'*, so as to hold the plates B and C rigidly together.

D is a cover-plate, (clearly shown in the sectional view, Fig. 2,) this plate being secured to the base A or to the plate B in any suitable manner—for instance, by screws which pass into the base.

E are a series of disks (three in the present instance) to correspond with the three dice usually employed in playing the game of dice, each of the disks E having marked on its face either characters or dots representing the numerals from one to six, inclusive. The disks are so mounted that the characters on each disk may be exposed one at a time through openings *d* in the cover-plate D, as shown in Fig. 1. Each disk has a spindle *e*, which passes through an opening *f* in the plate B, and has a tapered end stepped in recesses *f'* in the plate C.

F is a central shaft provided with a suitable handle and having its bearing in the plates B and D and a support in the bottom plate C. On this shaft is a drive disk or wheel G, which comes into frictional contact with the edges of the disks E, this disk G being preferably rubber-shod and of sufficient weight to give it the momentum required.

We preferably place a washer *g* between the disk G and the casing to prevent lifting of the shaft from its bearings. The openings in the plates B and D for the passage of the shaft F are larger in diameter than the shaft, so that the shaft will, when quickly turned, sway like a top when spun.

The disks E are so arranged in respect to the shaft that the disk G will barely touch the edges of the disks E, and when the shaft is revolved the slight swaying motion of the shaft will cause the friction-disk to rotate the three dice-disks, such rotation being generally at different speeds, and one disk will generally start to rotate before the others. Hence, owing to this arrangement, the speed of the dice-disks will vary, and the desired element of uncertainty in the relative extent and speed of their rotation is secured.

Situated betwen the plates B and C is a movable plate H, which rests, when in its normal position, on shoulders c^2, formed on the posts *c*, or where plain posts are used the plate may rest on independent sleeves on the post or on projections c^3, struck up from the plate C, as shown in Fig. 8. The plate H has a series of openings *h*, through which the posts C pass, and it is also provided with openings *i* for the passage of the spindles *e* of the disks E. Alongside of each opening *i* is a pointed pins *k*, which pins extend through opening *k'* in the plate B, as shown in Fig. 2.

In each dice-disk E are a series of openings *n* preferably opposite each figure or indicating-mark, these openings being tapered on the under side, as shown in Fig. 7, and the tapered portions intersecting each other, so that when the pins *k* are forced up each pin will pass into that one of the openings *n* of its cor-

responding disk which happens at the time to be most nearly over it, thereby locking the disk in position.

The plate H is raised by a lever I, pivoted at *i* to a lug fastened to or struck up from the plate C, the arm *j* of this lever being bent and extending through an opening *m* in the plate B and being provided with a suitable knob, as clearly shown in Figs. 1 and 2. The arm *j'* of the lever is made, preferably, in the manner shown in Fig. 5—that is to say, with a loop at the inner end—although it may be forked or may be simply a straight arm. When the lever I is raised, the arm *j'* strikes two lugs *h'* on the under side of the plate H, so that the plate will be raised evenly, although other mechanism may be employed for raising this plate without departing from our invention.

We prefer to make the disks E higher at the center than at the edges, so that should they lift when spun, such high portions will strike the cover-plate D and prevent the spindles from leaving the recesses *f'*.

It will be seen that when the dice-disks are spun by the center shaft they can be stopped immediately and simultaneously by pressing the lever I, and thereby raising the pins *k*, which enter the openings *n* in the disks. These openings in each disk are six in number and correspond with the six marks on the disk, and the position of the pins in relation to the openings and numbers on the disks and to the openings in the cover-plate is such that when the pins are moved into an opening in each disk a number will be exposed through each opening in the cover-plate.

We claim as our invention—

1. The combination, in a game apparatus, of the three dice-disks mounted in suitable bearings, with the central shaft having a friction-disk for driving said dice-disks by contact with their peripheries, said shaft being free to sway slightly in its bearings, substantially as specified.

2. The combination of the base, the dice-disks mounted thereon, the central shaft, a disk on said central shaft adapted to engage with the dice-disks when the shaft is revolved, pins connected together and adapted to engage with the dice-disks, and means for moving said pins, substantially as described.

3. The combination, in a game apparatus, of the base, the disks having dice-marks thereon, a central shaft for giving motion to said disks, a series of pins connected together and adapted to enter orifices in the disks, and a lever for moving said pins, substantially as described.

4. The combination of the base, the cover-plate having openings for exposing a portion of each disk, dice-disks mounted on said base and having tapered locking-openings therein, mechanism for rotating said disks, the locking-pins, and mechanism for raising said pins so as to cause them to enter the tapered openings in the disks, thus locking the disks in position to expose a number at each opening in the cover-plate, substantially as described.

5. The combination of the base, two bearing-plates connected together, a central shaft provided with a handle by which it is turned. a friction-disk on said shaft, dice-disks arranged in respect to said friction-disk, as described, a spindle on each dice-disk adapted to the bearing-plates, a plate between the bearing-plates, locking-pins carried by said plate, and a lever for moving the plate, the dice-disks having openings with which the pins engage when the plate is raised, and the cover-plate having openings to expose a single figure on each dice-disk, substantially as described.

6. The combination of the dice-disks having spindles adapted to bearings, mechanism for revolving said disks, a plate having pins adapted to engage with the dice-disks when raised, two projections on the under side of said plate, and a lever having one arm adapted to strike the two projections and another arm to be depressed by the player, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ROBERT RABIGER.
EMIL RABIGER.

Witnesses:
EUGENE ELTERICH,
HARRY SMITH.