ABSTRACT: The structure of the Game is an elevated stand having a top section and opposed flat sides below the same. Each side is adapted for play by one or two players, the top section having two chutes for discs or similar playing objects leading to an appropriate one of the sides for progressive reception in peripheral cavities of a succession of manually operated wheels. Each wheel is connected for rotation with a wheel on the opposite side of the elevated stand, and the wheel cavities at one side of the stand are offset from those on the opposite side. Each wheel carries a finger piece for rotation thereof, and when an overhead wheel has its peripheral cavity in register with an immediately under wheel, the disc or allied playing object will fall into the under wheel, and so on until the playing object is discharged from the lowermost wheel. In the embodiment illustrated two chutes are shown at each side of the top section, enabling play by four but two can play, as opposed, one at each side of the stand.
GRAVITY PROJECTOR GAME DEVICE

Each player loads a chute on his side with playing objects, then the players take turns, turning the wheels so that the playing object will fall from the initial top wheel to a collection area of the stand. The first player to bring all of his playing objects to the base of the stand, is the winner. The cavities being, as to one side, offset from the connected wheels of each opposite set, neither player knows when he may be helping or hindering his opponent on the opposite side of the stand.

The invention will be described with reference to the accompanying drawings, in which:

FIG. 1 is a view in elevation showing an embodiment of the invention at one side thereof.

FIG. 2 is a view in elevation showing one end of the structure, the ends being alike.

FIG. 3 is an enlarged section taken on the line 3-3, FIG. 1.

FIG. 4 is fragmentary horizontal plan view, the section being taken on the line 4-4, FIG. 1.

FIG. 5 is a view in elevation of the inner side face of one of the wheels, illustrating the springlike pressure fingers.

FIG. 6 is an enlarged fragmentary section, taken on the like 6-6, FIG. 5.

FIGS. 7 and 8 are, respectively, side and edge views of a suitable playing object or piece, and being adapted roll down one of the chutes and into a wheel cavity.

Referring to the drawings, it will be seen that the "stand" may properly be termed a tower, having a base 1, a chute-carrying section 2, and an intermediate wheel-carrying section 3. The three sections or areas of the tower may be made in three separate pieces, but preferably are molded in one unit, as of plastic. The present embodiment is adapted for play by four players, two at each side of the tower, or for two and even three, because each side is provided with two inclined chutes, each leading to the periphery of a topmost and hence initial wheel 5, which in turn is connected to a like wheel at the opposite side of the tower, as indicated in FIG. 2. In other words each pair of mutually connected wheels may be fixed to an axle 6, FIG. 2, which projects outwardly at each side of the tower, and holding a finger piece 7 or 7', as the case may be. Either finger piece rotating both of the thus-connected opposed two wheels.

As shown by the full cavity-indicating lines at 8, FIG. 1, the initial wheel can be turned by its finger piece 7 until its said indicated cavity comes into register with the bottom of the appropriate chute of the player, at one side of the tower, whereupon the playing object or piece, such as 10, FIGS. 5 and 7, will drop into the cavity. The dotted lines at 9, FIG. 1 indicate the cavity in the opposite wheel 5', and that stated movement of wheel 5 the receiving cavity 9 therein will be moved out of register with its chute, to obstruct the next player's play.

In FIG. 1 of the drawing five wheels are shown at the said exposed side of the tower, and as indicated at 5, 10, 11, 12 and 13, and they are of progressively greater diameter and progressively with a greater number of playing piece receiving cavities. And the cavities of each connected pair of wheels are as to one wheel offset from those of the other wheel.

At each side of the tower the wheels are flush with the appropriate side faces of the tower, recesses being formed in the latter for that purpose, and each wheel at its inner face carries one or more spring-friction fingers to bear upon an inset tower wall face so as to hold the co-connected pair of wheels into a position moved by a player. Thus, in FIG. 5, the wheel 11, shown with four spring fingers, rounded at their pressure ends, integral with the wheel, as best shown in FIG. 6.

Successful play of the game requires watchfulness and agility. Although the number of playing pieces to be employed by a player may be varied, the requirement of five to be played, for example, requires quick and successful movement of the players five wheels, for skillful and competent play, intermediate successive movement of the same wheels by the opposing player.

It will be noted from FIGS. 1, 2 and 4 that as the playing pieces are discharged from the lowermost wheel 13 they will fall into a tray section 15 in the base 1, those discharged at the opposite side of the tower dropping into tray section 16.

It will be understood that various modifications may be made in the form and arrangement of the elements constituting the embodiment shown, without departure from the spirit of the invention.

Having described our invention, what we claim and desire to secure by Letters Patent, is as follows:

1. In a game, a tower structure, a chute at each upper side area thereof and adapted to receive and permit downward movement of a playing piece, an uppermost wheel in registry with the bottom of said chute at one side of the tower, an uppermost wheel in registry with the chute at the opposite side of the tower, at least one cavity in the periphery of each wheel and adapted to receive said playing piece, and at least one wheel underlying each uppermost wheel and in peripheral registration therewith and each other, each of said wheels being formed with at least one playing piece cavity adapted to register with a cavity in a wheel in registry therewith, means mounting the two uppermost wheels on the tower for simultaneous rotatable movement and adapted to permit manual rotation thereof, and means mounting the wheel underlying each uppermost wheel for simultaneous rotatable movement with its corresponding wheel on the other side of the tower and adapted to permit manual rotation thereof.

2. A game constructed in accordance with claim 1, the cavities of a wheel at one side of the tower being offset from the cavities of the wheel connected therewith and lying at the opposite side of the tower.

3. A game constructed in accordance with claim 1, in combination with spring fingers carried by the wheels, and adapted to bear upon the face of the tower to which they are directed.

4. A game constructed in accordance with claim 1, wherein certain of said wheels are integrally molded of a plastic material and integrally formed with spring fingers having end areas projecting beyond the appropriate side faces of the wheels, said spring fingers being positioned to engage sideward areas of the tower.