

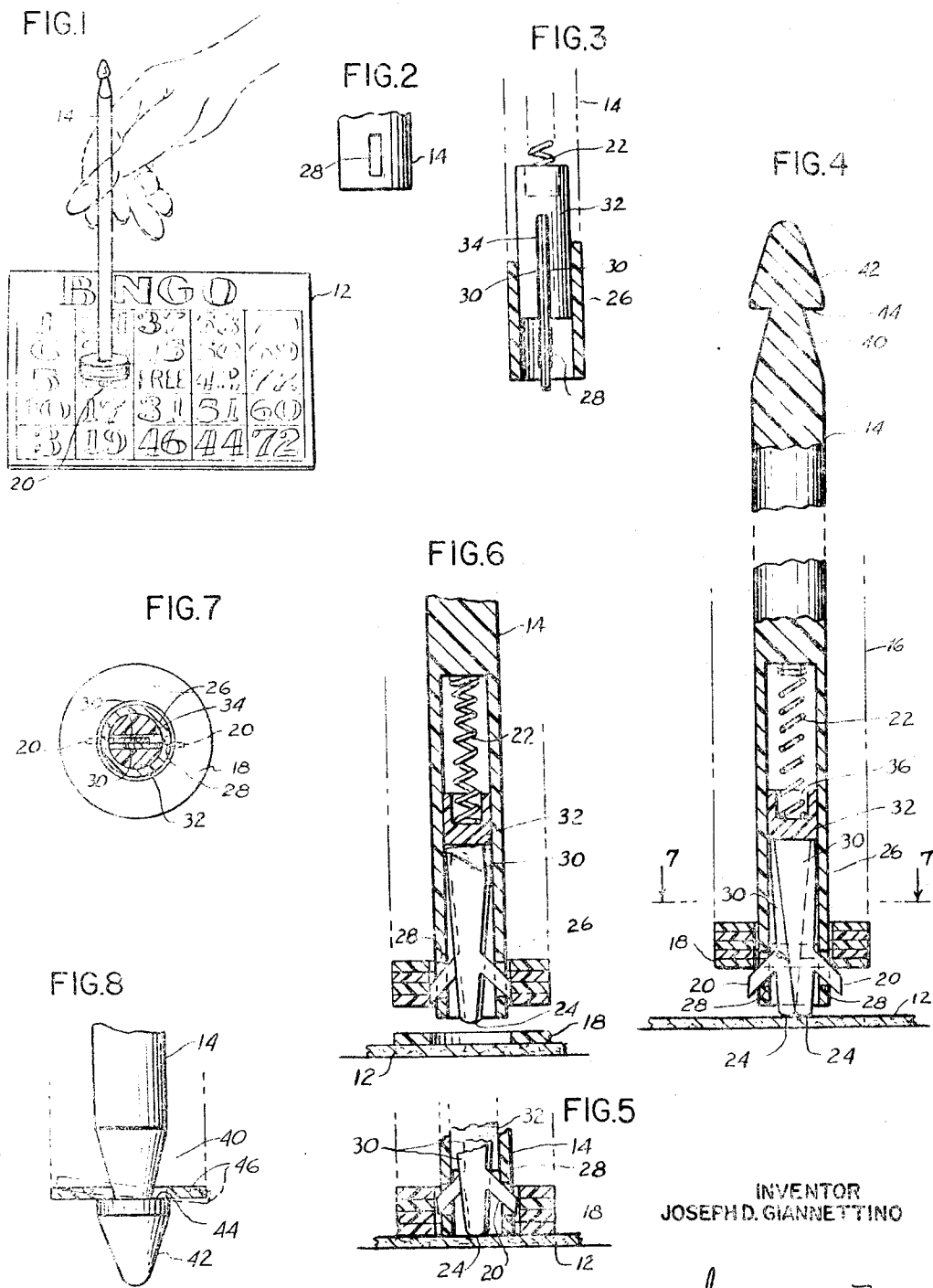
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DISPENSER FOR DEPOSITING SINGLE DISCS, AS ON A GAME BOARD

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DISPENSER FOR DEPOSITING SINGLE DISCS, AS ON A GAME BOARD

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7 Claims

ABSTRACT OF THE DISCLOSURE

The present improvement is a dispenser for depositing single discs on a bingo card. The dispenser comprises a rod loaded with a stack of discs, and has detents at its lower end, with resilient means to spread the detents to retain the discs. Feeler means project downward from the lower end of the rod, and pushing the rod downward on the game card moves the detents inward to release the lowermost disc.

Background of the invention

Many bingo enthusiasts play a number of cards at once, in an effort to increase the chance of winning. This requires rapid marking of the cards, and instead of using pencil marks, they may employ small discs as markers. One can hold only a limited number of discs, and in putting them down, there is a likelihood of unintentionally moving other discs which have already been deposited on the bingo card. The general purpose of the invention is to provide a dispenser which overcomes this difficulty.

Summary of the invention

The present improvement is a dispenser for accurately depositing single discs on a bingo card or other such game card. The dispenser comprises a rod loaded with a stack of discs, and has detents at its lower end, with resilient means to spread the detents in order to retain the discs on the rod. Feeler means project downward from the lower end of the rod, and the parts are so arranged that upward movement of the feeler means relative to the rod, as when pushing the dispenser downward in desired location on the game card, moves the detents inward and releases the lowermost disc for deposit on the game card. In preferred form the detents are disposed at an angle sloping downwardly and outwardly, and the lower end of the rod has openings on opposite sides through which the detents pass with a camming action, so that downward movement of the detents moves them outward, and upward movement of the detents moves them inward. A detent and feeler and an upwardly extending shank may be made of a single piece of sheet metal. The tubular lower end of the rod has a slider axially movable therein, and a compression spring bears downward on the slider. The slider has a diametrically disposed slot dimensioned to receive two sheet metal shanks in face-to-face relation.

The upper end of the rod is preferably necked to form a head which helps retain the discs on the rod.

The foregoing and additional features are described in the following detailed specification, which is accompanied by a drawing in which:

FIG. 1 shows the dispenser in use with a bingo card;

FIG. 2 is a fragmentary view explanatory of a detail;

FIG. 3 is a fragmentary vertical section through the lower end of the dispenser;

FIG. 4 is a diametrical section taken at right angles to the section of FIG. 3, and shows the relation of the parts when the dispenser is first loaded with discs;

FIG. 5 is a fragmentary section like the lower end of FIG. 4; and shows the relation of the parts when the dispenser is pushed down against a game card;

FIG. 6 is a similar section, but shows the relation of the parts as the dispenser is raised from the game card;

FIG. 7 is a transverse section taken approximately on the line 7—7 of FIG. 4; and

FIG. 8 shows the disc retention head, with the dispenser inverted.

Referring to the drawing, and more particularly to FIG. 1, the game card 12 is a bingo card with an array of numbers some of which are to be marked if and when called out. The dispenser 14 may be loaded with marker discs, these being apertured or washer-like in configuration. They are usually made of plastic, for light weight and low cost. The rod-like magazine 14 of the dispenser is initially loaded with a large number of discs, but only a small number are shown in FIG. 1. To mark a number the player simply pushes the dispenser downward on that number, thereby releasing the lowermost disc, which remains deposited on the number as the dispenser is raised. This may be done on a single card as shown, or it may be done rapidly on an array of cards, by a single player.

Referring now to FIG. 4 of the drawing, the dispenser rod 14 is loaded with a stack of discs indicated in broken lines at 16, with only a few of the discs shown in detail at 18 near the bottom of the dispenser. There are detents 20, in this case two diametrically disposed detents at the lower end of the rod, and a resilient means 22 tending to spread the detents to retain the discs on the rod. Feeler means 24 project downwardly from the lower end of the rod, to be pushed against the bingo card 12 at a called number. A downward push moves the detents inward to release the lowermost disc 18 for deposit on the card.

In FIG. 4 it will be seen that the detents 20 are disposed at an angle sloping downwardly and outwardly, and that the tubular lower end 26 of the rod has openings 28 on opposite sides of the rod through which the detents pass with a camming action. As is best shown in FIG. 2, the openings 28 are rectangular openings near the bottom of the rod. In FIG. 2 the detents and feelers have been omitted to more clearly show the opening 28.

From inspection of FIG. 4, it will be seen that downward movement of the detent 20 relative to its opening 28, will cause the detent to move outward, and conversely, upward movement of a detent relative to the opening will cause it to move inward.

In the preferred construction here illustrated a detent 20, and its feeler 24, are made integral with an upwardly extending shank 30, these parts being made of sheet metal. The tubular lower end 26 of the rod has a cylindrical slider 32 axially or longitudinally movable therein. The compression spring 22 bears downward on the upper end of the slider 32. The lower end of the slider and most of its length is slotted with a diametrical slot, shown at 34 in FIGS. 3 and 7, this slot being dimensioned to receive two of the sheet metal shanks 30 in face-to-face relation. The shanks taper in width in downward direction, as shown in FIG. 4, thereby providing ample clearance for lateral movement of the detents 20. This clearance is also made large enough to permit assembly of the parts through the open lower end of the rod. The sheet metal parts are alike, but are reversed in position. The upper end of the slider 32 may be cupped or counter-bored as shown at 36 (FIG. 4) to receive the lower end of the compression spring 22.

The operation of the dispenser may be explained with reference to FIGS. 4, 5, and 6, considered in sequence. The markers or discs 18 are initially loaded on the rod 14 from above, and rest on the outwardly spread detents as shown in FIG. 4.

When the dispenser is pushed down against a game card, the feelers 24 are forced relatively upward as

shown in FIG. 5, the rod 14 being pushed downward to the game card. The movement of the upper ends of the openings 28 against the detents 20 forces or cams them inward to the release position shown in FIG. 5, that is, the detents span a distance less than the diameter of the holes in the discs. The slider 32 is forced relatively upward against the force of the spring. The discs drop downward, with the lowermost disc 18 resting on the card 12, and beneath the detents 20. The next higher disc is not beneath the detents.

When the dispenser is raised from the card as shown in FIG. 6, the spring 22 and slider 32 urge shanks 30 downward. The lower ends of the openings then cam the detents 20 outward so that they bear against the inner wall or hole of the then lowermost disc or two. The detents do not move outward as far as shown in FIG. 4, the outward movement of the detents being limited by the lowermost discs. The feelers 24 move downward somewhat, but not as far as shown in FIG. 4.

The operation thereafter is illustrated by comparison of FIGS. 5 and 6, without reference to FIG. 4, that is, each downward push of the dispenser on a card number changes the parts from the relation shown in FIG. 6 to that shown in FIG. 5, and vice versa, each lift of the dispenser causing a change from FIG. 5 to FIG. 4. Only one disc is released at a time.

Referring to FIGS. 4 and 8, the upper end of the rod 14 is preferably necked as shown at 40 to form a head 42 which helps retain the discs on the rod if turned sideward or even inverted as shown in FIG. 8. The head 42 is preferably small enough in diameter for passage through the discs, so that they may readily be loaded downwardly on the rod. The lower end of the head 42 has a square shoulder as shown at 44, and usually this helps catch the endmost disc to retain the disc on the rod, because in most cases the disc is offset slightly and rests on the shoulder, as is shown in FIG. 8 with disc 46 resting on the shoulder 44.

It is believed that the construction and operation of my improved dispenser for depositing single discs on a game card, as well as the advantages thereof, will be apparent from the foregoing detailed description. The dispenser facilitates rapid and accurate deposit of the discs, one at a time. It does not mark or deface the bingo card. It is slender, and does not obstruct a player's view of the cards. It operates without moving previously dispensed markers. It is readily operable in either hand. The rod may be made relatively long, say six inches in length, and may be loaded with a large number of discs, while still keeping the upper portion of the rod available for holding and manipulation of the dispenser. The operation is dependable in releasing a marker, and in releasing only one marker at a time. Spillage from the upper or loading end of the rod is inhibited.

It will be apparent that while I have shown and described the dispenser in a preferred form, changes may be made without departing from the scope of the invention.

I claim:

1. A dispenser for depositing single discs, as on a game card, said dispenser comprising a rod loaded with a stack of discs thereon, detents at the lower end of the rod, resilient means tending to spread the detents to retain the discs on the rod, feeler means projecting downward from the lower end of the rod, and means whereby upward movement of the feeler means relative to the rod, as when pushing the dispenser downward in desired location on the game card, moves the detents inward to

release the lowermost disc for deposit on the game card, in which the lower end of the rod is tubular and receives a compression spring bearing downwardly on the upper ends of two members, each member comprising a sidewardly projecting detent and a downwardly projecting feeler, and means whereby an upward push on the feeler causes inward movement of the detent.

2. A dispenser as defined in claim 1, in which the detents are disposed at an angle sloping downwardly and outwardly, and in which the lower end of the rod has openings on opposite sides through which the detents pass with a camming action, whereby downward movement of a detent relative to the opening moves the detent outward, and upward movement of a detent relative to the opening moves it inward, said members being made of sheet metal and being disposed in face-to-face relation.

3. A dispenser as defined in claim 1, in which each detent and feeler is made integral with an upwardly extending shank, said parts being made of sheet metal, and in which the tubular lower end of the rod has a slider axially movable therein, the compression spring bearing downward on the upper end of the slider, the lower end of the slider and most of its length being slotted with a diametrically disposed slot dimensioned to receive two of the aforesaid sheet metal members in face-to-face relation.

4. A dispenser as defined in claim 1, in which the upper end of the rod is necked to form a head which helps retain the discs on the rod, even though the head is small enough in diameter for passage of the discs when loading the dispenser.

5. A dispenser as defined in claim 1, in which the detents are disposed at an angle sloping downwardly and outwardly, and in which the lower end of the rod has openings on opposite sides through which the detents pass with a camming action, whereby downward movement of a detent relative to the opening moves the detent outward, and upward movement of a detent relative to the opening moves it inward.

6. A dispenser as defined in claim 5 in which each detent and feeler is made integral with an upwardly extending shank, said parts being made of sheet metal, and in which the tubular lower end of the rod has a slider axially movable therein, the compression spring bearing downward on the upper end of the slider, the lower end of the slider and most of its length being slotted with a diametrically disposed slot dimensioned to receive two of the aforesaid sheet metal members in face-to-face relation.

7. A dispenser as defined in claim 6, in which the upper end of the rod is necked to form a head which helps retain the discs on the rod, even though the head is small enough in diameter for passage of the discs when loading the dispenser.

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