

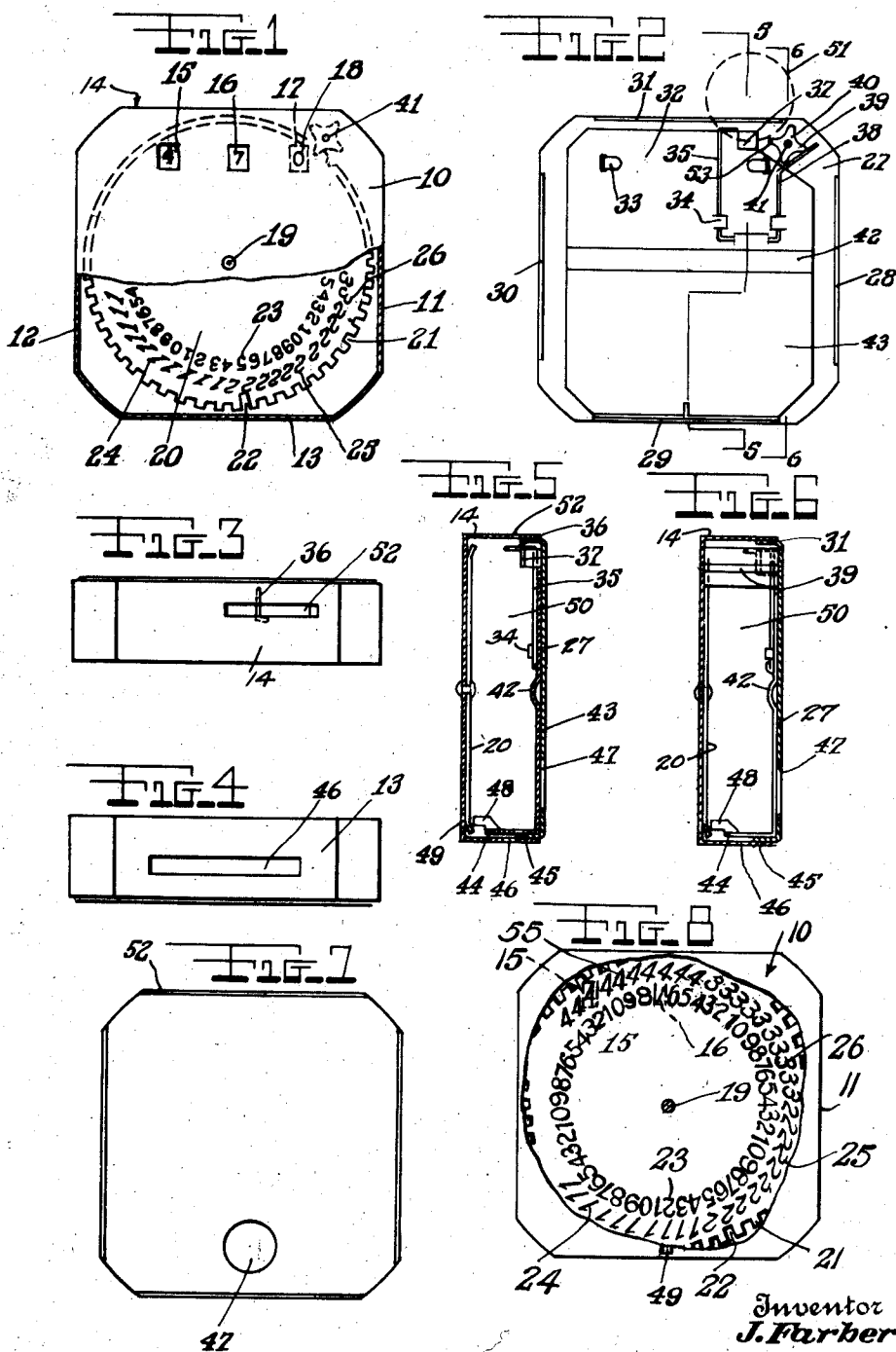
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COIN CONTROL REGISTER BANK

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COIN CONTROL REGISTER BANK

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3 Claims. (Cl. 235—100)

The main object of this invention is to provide a coin controlled bank which registers the amount of money deposited in the bank at all times.

Another object of the invention is to provide a register bank constructed to receive one size of coin, and when the total amount of coins are received in the bank means are provided for extracting these coins, said means being automatically released upon the insertion of the last coin into the bank.

Still another object of the invention is to provide a coin controlled register bank which adds the total of coins inserted into the bank, and is adapted to be locked until the last predetermined coin is inserted into the device, after which a manual pressure upon a member of the bank opens the latter and permits the contents to be extracted by a shaking of the bank.

Still another object of the invention is to provide a coin register bank equipped with a numerically graduated dial. The bank preferably reads from zero to fifty, each numeral representing a dime, and should the numerals all be placed on one radius, the same would be exceedingly small and hardly decipherable. For this reason a dial has been provided with numerals on two radii, the particular construction of which will be brought out in the specification. By placing the numerals in two series, it is possible to place fifty numerals in one series and forty-one numerals in the second outer series, in an arrangement peculiar to this device.

The above and other objects will become apparent in the description below, in which characters of reference refer to like-named parts in the drawing.

Referring briefly to the drawing, Figure 1 is a front elevational view of the coin controlled register bank showing the sighting windows on the face thereof—a portion of the front face of the bank being broken away to illustrate the arrangement of the coin counting numerals on the disk.

Figure 2 is a front elevational view of the rear complementary portion of the coin register bank showing the mechanism for rotating the coin counting disk.

Figure 3 is a top plan view of the coin controlled register bank showing the coin receiver slot.

Figure 4 is a bottom plan view of the coin register bank showing the coin extractor slot.

Figure 5 is a cross sectional view thru the bank taken on line 5—5 of Figure 2.

Figure 6 is a cross sectional view thru the coin register bank taken on line 6—6 of Figure 2.

Figure 7 is a rear elevational view of the bank showing the aperture thru which the release or extract mechanism is actuated when the bank has been filled.

Figure 8 is a front elevational view of the coin register bank with the casing broken away to disclose the arrangement of the numerals on the number disk.

Referring in detail to the drawing, the numeral 10 indicates the face of a dished-out member which comprises the head of the coin register bank. This head is provided with a bounding flange comprising parallel walls 11 and 12, 13 and 14. Near the upper end of the wall 11, a pair of spaced aligned side by side windows 15 and 16 are formed and disposed on the same plane. Adjacent to the window 16 and on the same plane and at the right hand side thereof, a false window 17 is provided. This false window is adapted to simulate the perforated windows 15 and 16 and has inscribed therein, a zero 18. Centrally upon the reverse side of the face 10, a stud 19 is mounted. This stud rotatably supports a disk 20. The periphery of the disk 20 is provided with a plurality of radial and equally spaced apart teeth 21, substantially square in outline. These grooves are fifty in number and the depth of the space between two adjacent teeth is greater than the space between the other teeth to provide a slot 22 for a purpose which will be more fully hereinafter described.

Upon the face of the disk 20, two annularly arranged sets of numerals are graduated. The inner annularly arranged set of numerals indicated by the numeral 23 are in five groups, each group extending from left to right and reading from one thru to nine, and then a zero, that is, there are five groups, one following the other. The numerals 23 reading 1, 2, 3, 4, 5, 6, 7, 8 and 9 and zero in continuous order. These numerals 23 are arranged so that their centers pass thru the radii generated about the axis of the disk.

The outer series of numerals is of a slightly different arrangement, and comprises an arcuately arranged series of four groups and an additional zero, and progressive in value. In the outer series, one group of numerals, ten in number, are illustrated as the numeral one, indicated by the numeral 24. The next of ten numerals are graduated as the numeral 2 indicated by numeral 25. The next ten numerals are graduated as the numeral 3, and are indicated by the numeral 26. The next ten numerals are graduated as the nu-

meral 4, and are indicated by the reference character 55, the numeral 1 group being spaced from the numeral 4 group. The zero above mentioned is disposed at the end of the 4 group and the intervening space between the zero and the beginning of the 1 group is equal to the amount of space occupied by ten of the numerals 55.

Speaking briefly of the arrangement of the numerals, it may be said that the inner circle comprises fifty numerals arranged in groups from one to nine, and zero, while the outer group comprises 41 characters arranged as ten one's, ten two's, ten three's, ten four's, and one zero thereafter. The outer series of numerals graduated on the disk are arranged along chords with respect to the circular arrangement of the numerals of the inner circle. The first numeral of each set of numerals in the outer series, begins at a point intermediate the numerals four and five of each group of numerals on the inner circle, and ends intermediate the following numerals three and four, of the next group. In this manner it becomes possible to have a numeral one on the inner circle of numerals showing in window 16, while a numeral 1, 2, 3, 4, or zero shows in the window 15 and is readable on the same plane as the number showing through the window 16. By having the outer groups of numbers arranged along chords with respect to the radial arrangement of the numbers of the inner group, it is possible to bring the numbers of the outer group to a position in register with the window opening 15 to appear in the same parallel relation with a numeral of the inner group which is in register with the window 16 as best seen in Figure 1 of the drawing.

The complementary member illustrated in Figure 2 comprises the rear portion of the casing of the bank. This complementary member embodies a closure plate 27 upon the four sides of which support flanges 28, 29, 30, and 31 are formed. On the obverse side of the closure plate 27, a shield 32 is secured to the closure plate by means of hook members 33 which latter form a portion of the closure plate 27, and are blanked therefrom. This shield is substantially rectangular in form and has ears 34 blanked therefrom, which are passed about a U-shaped resilient member. Said U-shaped resilient member is formed into a coin contact finger 35 whose upper extremity is deformed into a hook such as indicated by the numeral 36. A coin barrier 37 forming part of the shield 32 is raised above the latter by deforming the shield and prevents the coin from passing sidewise into the bank. The opposite arm of the U-shaped resilient member is formed into a brake finger 38, and its upper end is bent angularly to contact with the lowermost two teeth 39 of a four toothed pinion 40. Said pinion extends across the width of the casing as illustrated in Figure 6 and has formed integral thereon, spindle ends 41 which are adapted to be conveniently journaled in openings provided for these ends in the face 10, and closure plate 27. The pinion is in such position that the lowermost tooth is in mesh with two adjacent teeth 21 of the counting disk 24. The shield 32 is fluted across its width, intermediately its height as indicated by the numeral 42, so as to make the lower portion 43 thereof, resilient, this lower portion 43 not being secured to the closure plate 27 over its entire area. The lower edge of the portion 43 of the shield has a right angled bend therein, from which extends a movable apron 44. In this apron a slot 45 is formed which is adapted

to align with the extracting slot 46 formed in the flange 13 when a finger or other implement is projected against portion 43 of the shield thru the aperture 47. To prevent the plate 43 from being manipulated before the bank has been filled with coins, a tongue 48 rising from the apron 44 extends from the edge of the latter, and is adapted to partly enter into the rectangular opening 49, when the long groove 22 on the disk is aligned with said rectangular opening. This occurs once during a complete rotation of the disk 24 and is so timed to occur when the chamber 50 of the coin bank has been filled with coins.

The coin which in this instance is shown as being a dime or ten cent denomination is indicated by the numeral 51 in the act of being projected into the receiver slot 52. Although the bank described herein is intended for receiving and registering coins of ten cent denomination, the same may be designed for receiving coins of different denominations.

In use, the coin controlled register bank herein shown is adapted to receive fifty coins of ten cent denomination. This coin need not necessarily be a ten cent dimension, as the same may be designed to receive quarters, pennies, nickels and fifty cent pieces which may be counted depending entirely upon the size of the coin opening and what numerical graduations are placed upon the face of the disk, and how many teeth such as indicated by the numeral 21 are formed on the periphery of the disk. The illustration shows however, an actual full sized dime register bank. The receiver slot 52 is formed in such position on the flange 31 so that but one end of the slot is superimposed over the tooth 53 of the pinion 40. To retain the coin in actuating condition upon the tooth 53 of the pinion, the resilient finger 35 is provided. The normal position of rest of the finger 35 is illustrated in Figures 2 and 3 and when the coin such as 51 is partly placed in the receiver slot 52 and projected downwardly the finger 35 is deflected in a direction opposite to the pinion 40. This action tenses said finger 35 and urges the periphery of the coin into actuating contact with the tooth 53 thus rotating the pinion 40 an arcuate distance equivalent to 90 degrees. Rotation of this pinion rotates the disk 24, one fiftieth of its circumference, as these two members are intimately meshed. Rotation of the disk 24 causes a new set of numerals to be shifted in front of the windows 15 and 16.

I lay particular stress upon the arrangement of the numerals graduated upon the counting disk 24. These numerals are so positioned upon the face of the disk that space is conserved, thus eliminating the necessity of constructing a larger disk with a consequent increase to the dimensions of the entire structure. The arrangement of these numerals are both original and novel. It will be noted that two series of numerals are provided, an inner circle with five groups of numerals progressively increasing from one to nine and then to zero. With the insertion of each individual coin these numerals are progressively increased, and are sighted thru the window 16. The outer series of numerals comprises forty one characters arranged in four groups of ten characters and the forty first character becomes a zero. All of these numerals on the outer series are sighted thru the window 15.

I claim:—

1. In a register, a disk, an inner series of numbers on said disk arranged in circular formation, said inner series of numbers including a plurality of groups of numbers, the numbers of each group ranging from 0 to 9 consecutively, and an outer series of numbers on said disk arranged in circular formation, the numbers of the outer series being arranged along chords with respect to the circular arrangement of the numbers of the inner series, the outer series of numbers including groups of numbers, there being ten identical numbers in each group and the groups being arranged in numerical order.
2. In a register device, a casing, a disk rotatably mounted in said casing, said casing having two spaced sight openings therein, one of said sight openings being in vertical alinement with the axis of rotation of said disk, the other of said sight openings being offset with respect to the aforementioned sight opening, two annularly arranged concentric series of numbers provided on the front face of said disk, the longitudinal axis of the numbers of the inner series being disposed radially with respect to the axis of said disk for individual registration with the vertically arranged sight opening, while the numbers forming the outer series are arranged along chords with respect to the radial arrangement of the numbers of the inner series for upright registra-

tion with the other sight opening, whereby the numbers in registration with said sight openings will read in the form of a two digit number.

3. In a register device, a casing, a disk rotatably mounted in said casing, said casing having two spaced sight openings therein, one of said sight openings being in vertical alinement with the axis of rotation of said disk, the other of said sight openings being offset with respect to the aforementioned sight opening, an inner series of numbers on said disk arranged in circular formation, said inner series of numbers including a plurality of groups of numbers having their longitudinal axes disposed radially with respect to the axis of the disk for individual registration with the vertically arranged sight opening, the numbers of each group ranging from 0 to 9 consecutively, and an outer series of numbers on said disk arranged in circular formation, the numbers on the outer series being arranged along chords with respect to the radial arrangement of the numbers of the inner series for individual upright registration with the offset sight opening whereby the numbers in registration with the two spaced sight openings will read in the form of a two digit number, the outer series of numbers including groups of numbers, there being ten identical numbers in each group, and the groups being arranged in numerical order.

JACOB FARBER. 30