LE GRAND SKINNER.

RECORD CABINET.

APPLICATION FILED SEPT. 25, 1917.

1,279,464.

Patented Sept. 17, 1918.

3 SHEETS—SHEET 1.

Fig. 1.

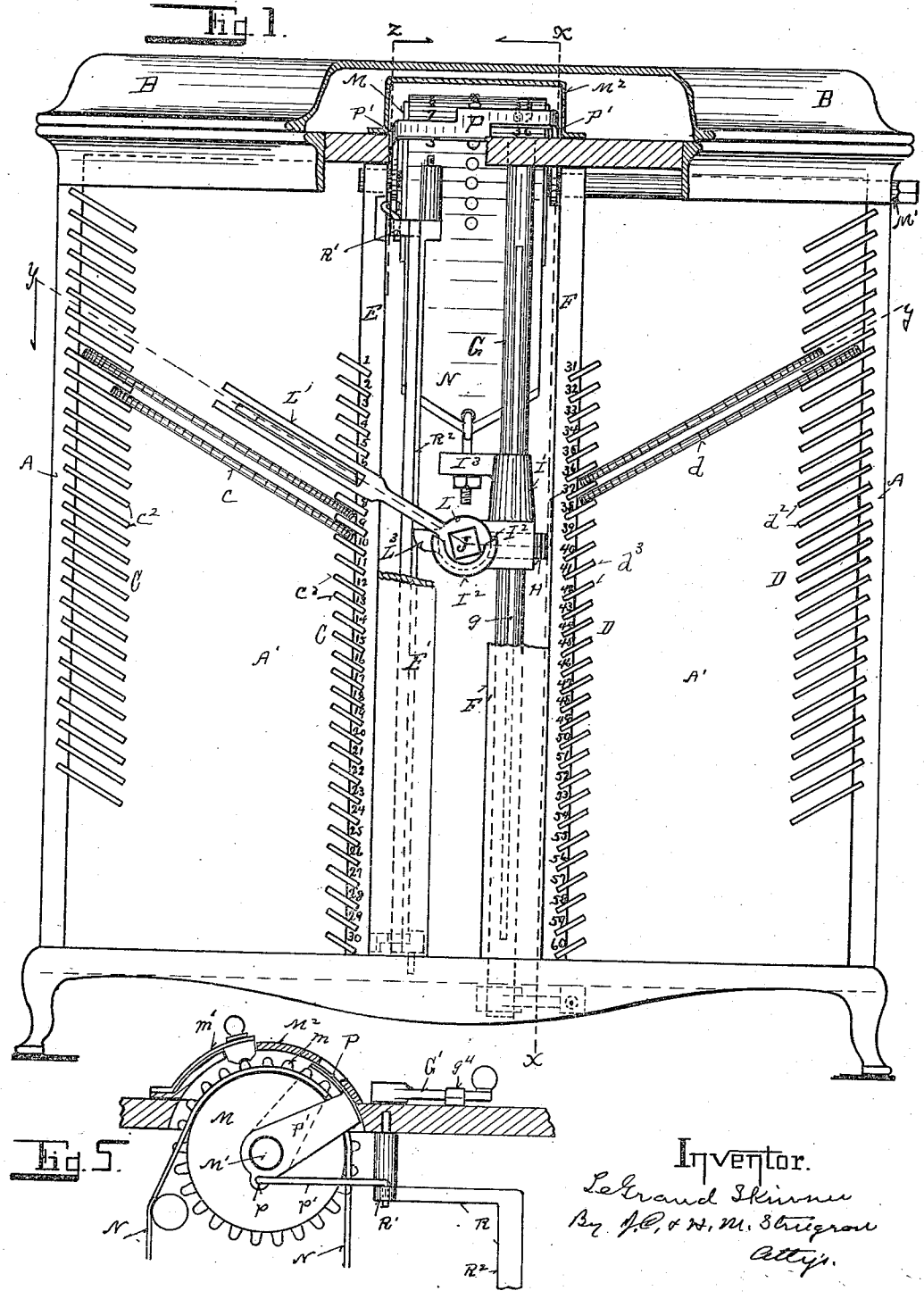


Fig. 5.

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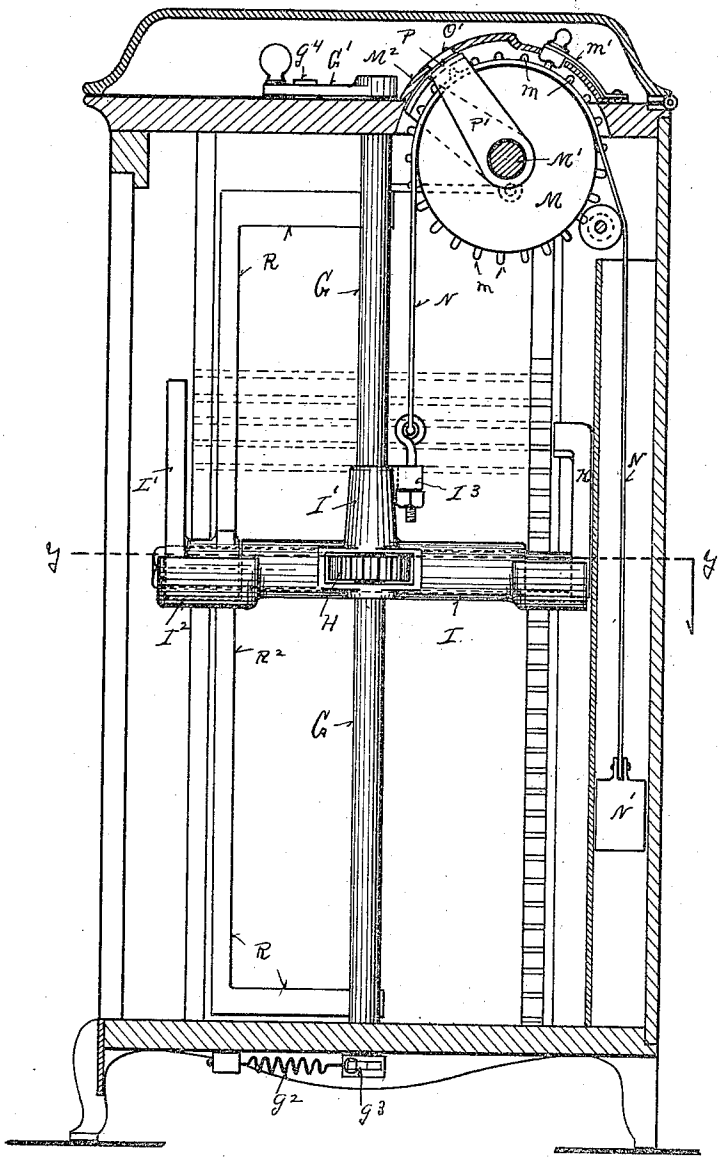
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3 SHEETS—SHEET 2.

Fig. 2



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3 SHEETS—SHEET 3.

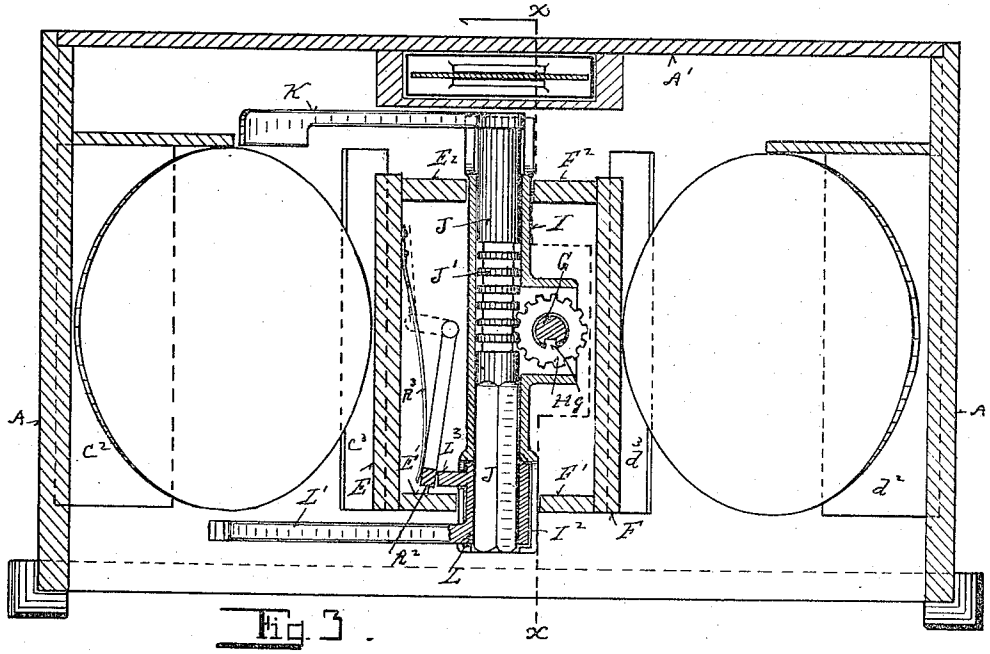


Fig. 3.

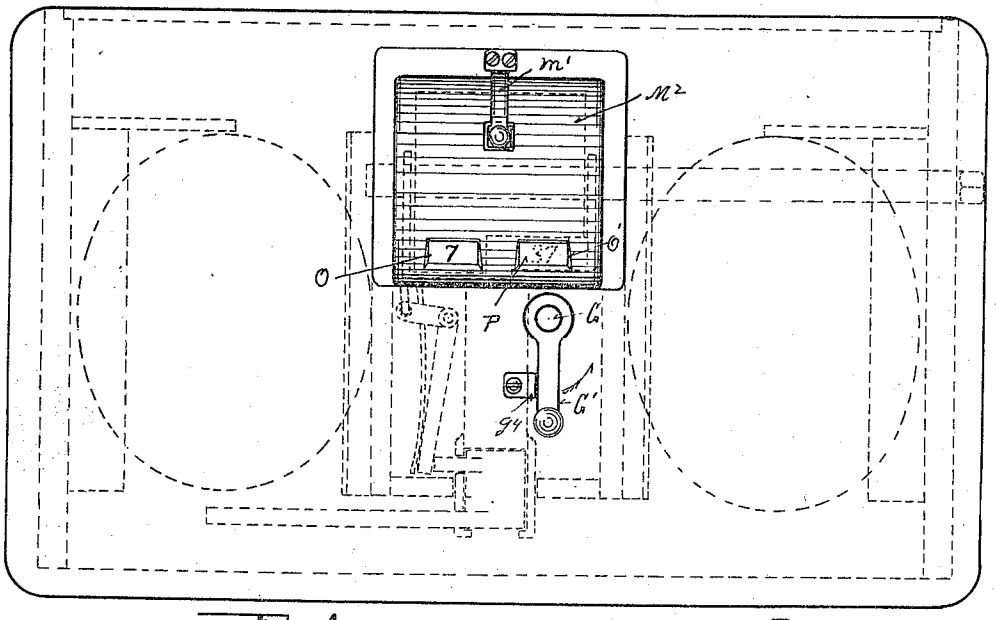


Fig. 4.

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UNITED STATES PATENT OFFICE.

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RECORD-CABINET.

1,279,464. Specification of Letters Patent. Patented Sept. 17, 1918.

Application filed September 25, 1917. Serial No. 193,099.

To all whom it may concern:

Be it known that I, LE GRAND SKINNER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Record-Cabinets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to filing cabinets and particularly to such cabinets for storing phonograph records, and has for its object the construction of a cabinet with a series of compartments, one above the other and provided with ejecting mechanism whereby a desired record can be removed from and replaced in the compartment in which it is stored.

To accomplish this result I provide a vertically movable ejecting mechanism provided with a series of numbers corresponding with the compartments, the numbers of which mechanism can be read at the upper part of the cabinet, and means thereon for operating said mechanism from the upper part of the cabinet. These and other features of this invention are hereinafter fully set forth and explained, and illustrated in the accompanying drawings, in which:

Figure 1, is a front view in elevation, with the front doors left off.

Fig. 2, is a vertical section on the dotted lines *x*—*x* in Figs. 1 and 3, looking in the direction of the arrows.

Fig. 3, is a transverse section on the lines *y*—*y* in Figs. 1 and 2 looking in the direction of the arrows.

Fig. 4 is a top or plan view with the top of the cabinet removed.

Fig. 5, is a sectional detail on the line *z* in Fig. 1, looking in the direction of the arrow.

In these drawings I have illustrated my invention by showing a phonograph record cabinet embodying the invention. It is obvious, however, that this invention can be utilized with equal facility in filing cabinets for other purposes.

In these drawings A indicates the side walls, A′ the rear walls, and B the top of an upright cabinet. This cabinet is provided preferably with two rows or stacks of compartments C and D to receive and support phonographic records *c* and *d*. These compartments are preferably made in short sections d^2 and c^2 extending inward from each side wall of the cabinet, and d^3 and c^3 outwardly from two inner vertical walls E and F. These compartments I have shown as inclined inwardly as illustrated in Fig. 1, but it is obvious that they may be made horizontal if desired.

On the front of the walls E and F, opposite these compartments, I preferably place numbers running consecutively from the top compartment to the bottom compartment, as illustrated in Fig. 1. These numbers may, however, be dispensed with if desired. Between the inner walls E and F, I place a vertical shaft G on which there is mounted a vertically movable carrier traveling between vertical guides E′ and E^2, and F′ and F^2 secured to the inside of the front and rear edges of the inner walls E and F whereby lateral movement of the ends of the carrier is prevented. This carrier preferably consists of a transverse sleeve I which, by means of a vertical sleeve I′ thereon, slides freely up and down on the shaft G. Mounted in the carrier there is a spur-pinion H through which the shaft G passes, and which engages it by means of a spline *g* so that the rotation of the shaft G rotates the spur-pinion H, in the sleeve.

In this sleeve I there is mounted a rock-shaft J provided with circular teeth J′, engaging the teeth of the gear-pinion H, so that the rotation of the shaft G operates to move the rock-shaft J forward and backward in the sleeve I. On the rear end of the rock-shaft J there is an ejector arm K adapted to pass into the rear of the compartments C or D, and the front end of the rock-shaft J is squared for some distance and adapted to slide through a square hole in the hub L of a bifurcated indicator arm L′, in front of the front edges of the compartments C or D, and receive and support the front edges of records pushed forward by the action of the ejector arm K against the rear edges thereof. The hub L of this arm L′ rests in a semi-circular recess I^2 in the front end of the sleeve I, and its movement is limited by its contact with the edges of the recess I^2, which retains the ejector arm K, and the arm L′ in their proper positions relative to the compartments C or D

that they will perform their functions in removing the records therefrom.

On the upper end of the shaft G there is a lever G′ (see Figs. 2 and 4) which, when moved in the direction of the arrow (Fig. 4) operates to rotate the shaft G and move the ejector arm K into the rear of the compartment which it is at the time opposite, and force the record therein forward into the bifurcated arm L′, and on the lever G′ being released, a spring g^2 operating on an arm g^3 secured to the lower end of the shaft G operates to rotate the shaft G in the opposite direction until the lever G′ is returned to its normal position against the stop g^4; this action operating to withdraw the ejector arm K from the compartment and allow the replacing of the record therein.

In the top of the cabinet at the rear of the upright shaft G, I mount a drum M provided with sprocket-teeth *m;* the shaft M′ of this drum M extending outward through the side of the cabinet where it is squared to receive an operating crank (not shown) whereby the drum M can be rotated. On the drum M there is mounted a sprocket belt N adapted to engage the sprocket-teeth on said drum and be actuated thereby. One end of this belt is secured to an arm i^3 on the sleeve I′ moving on the shaft G, and the opposite end of this belt N is provided with a counter-weight N′ adapted to counterbalance the sleeve I′ and the mechanism carried thereby.

On this belt N, I place preferably two rows of consecutive numbers corresponding with the compartments C and D. To control the movement of the drum M, I provide a spring stop *m′* engaging the sprocket teeth *m* thereon. The rotation of this drum M operates through the belt N to move the sleeve I′ up and down on the shaft G and bring the sleeve I into such position that the operating arms K and L′ will be opposite a compartment corresponding with a desired number on the belt N. Over the top of the drum M I preferably place a cover M^2 provided with sight openings O and O′. For opening and closing the openings O and O′ I provide a vibratory shutter P shown in Figs. 4 and 5, as leaving the opening O open, and the opening O′ closed, as illustrated in Fig. 4. This shutter is made with its ends offset, as shown in Fig. 1 so that when it is in the position shown in Figs. 1 and 5 the opening O is uncovered, showing the left hand row of figures on the belt, as in Fig. 4, and when the shutter P is moved upward as indicated in Fig. 2, the opening O is closed and the opening O′ is opened. The shutter P is operated by means of arms P′ thereon journaled on the drum-shaft M′ and is provided below the axis of the shaft M′ with an ear *p* in which there is pivoted a link *p′*, the opposite end of which is pivoted to an arm R′ indicated in dotted lines in Figs. 3 and 4, on the upper arm of a yoke R, so that the swinging of the part R^2 of the yoke R backward or forward, operates to move the shutter P as above described.

To move the part R^2 of the yoke in an outward direction, there is a lug L^3 on the hub of the arm L′ which, when the mechanism is operated with the left hand row of figures, operates to move the part R^2 of the yoke R outward against a spring R^3, which spring operates when the mechanism is adjusted to use the right hand row of figures to move the part R^2 of the yoke R forward, and thereby move the shutter P so as to close the opening O and open the opening O′.

I have herein shown and described convenient mechanism for utilizing my invention with a single row of compartments C; when, however, it is desired to operate the mechanism in conjunction with the compartments D, it is only necessary to swing the arms L′ and K from the left to the right, where they occupy the same relation to the compartments D as they did to the compartments C, and operate in all respects in the same manner, and produce the same results as hereinbefore described, as this movement of the arms L′ and K operates to rotate the shaft J in the sleeve I, which removes the lug L^3 from contact with the part R^2 of the yoke R, whereupon the spring R^3 moves the yoke forward so as to operate the shutter P to close the opening O, and open the opening O′ disclosing the right hand row of figures operating in connection with the compartments D, the same as hereinbefore described.

It is believed that the operation of the mechanism hereinbefore described so clearly explains the operation of my invention, that further description is unnecessary.

Having thus described my invention so as to enable others to utilize the same, I do not desire to be limited to the exact construction hereinbefore described, as what I claim as new, and desire to secure by Petters-Patent is:

1. In a device of the character described, a cabinet having a series of compartments therein, one above another, a vertical shaft at one end of said series of compartments, a transverse carrier movable up and down on said shaft, an ejector arm mounted in said carrier behind said compartments, means on said shaft for operating said ejector arm in a designated compartment, a wheel, detent mechanism to stop said wheel at certain points, and flexible means secured to said carrier and passing over said wheel.

2. In a device of the character described, an upright cabinet having a series of compartments therein one above another, a vertical shaft at one end of said series of compartments, a transverse carrier movable up and down on said shaft, arms mounted in

said carrier in front of and at the rear of said compartments, means for adjusting said carrier up and down on said shaft, and means engaging said shaft for moving the rear arm forward in a compartment to which the carrier is adjusted.

3. In a device of the character described, a cabinet having a series of compartments one above the other, a vertical shaft adjacent to said compartments, a carrier embodying an ejector arm movably mounted on said vertical shaft so as to be moved up and down thereon, and be operated thereby, a drum in the upper part of the cabinet, a numbered belt connected with said carrier passing over said drum and operated thereby, and means for operating said drum to adjust the carrier up and down on said vertical shaft.

4. In a device of the character described, a cabinet having a series of compartments therein one above the other, a vertical shaft mounted in said case adjacent to the ends of said compartments, a transverse carrier on said shaft movable up and down thereon, a rock-shaft movable longitudinally in said carrier, an ejector arm on said rock-shaft, means on said vertical shaft for operating the rock-shaft longitudinally, a sprocket-drum in the upper part of the cabinet, a numbered belt passing over said drum and connected with said carrier, and means for rotating said drum.

5. In a device of the character described, a cabinet having a series of compartments one above the other, a vertical shaft in said cabinet adjacent to said compartments, a transverse carrier slidably mounted on said shaft, a shaft capable of endwise movement in said carrier, an ejector arm on said shaft, a spur-gear in said carrier embracing said vertical shaft and operated thereby engaging teeth on the shaft in said carrier, a sprocket-drum in the upper part of said cabinet, a sprocket belt connected with said carrier, passing over said drum and operated thereby, and means in the upper part of the cabinet for operating said drum.

6. In a device of the character described, a cabinet having two stacks comprising series of compartments one above another therein, a vertical shaft between said two stacks of compartments, a transverse carrier slidably mounted on said vertical shaft, a rock-shaft slidably mounted in said carrier, an ejector arm mounted on the rear end of said rock-shaft, means on the vertical shaft for operating said rock-shaft and the ejector arm thereon longitudinally a bifurcated guide-arm slidably and non-rotatably mounted on said rock-shaft, by means of which said rock-shaft may be rotated, so that the ejector arm will operate in conjunction with either stack of compartments, a sprocket-drum in the upper part of the cabinet, a sprocket-belt connected with said carrier mechanism passing over said drum and operated thereby, having two rows of numbers on said belt corresponding with the compartments of each stack, means over said drum for exposing the figures in one of the rows of numbers at a time, means for operating said drum, and means for rotating said vertical shaft to operate the ejector mechanism.

7. In a device of the character described, a cabinet having a series of compartments one above another therein, a vertical shaft adjacent to said compartments, a carrier embodying an ejector arm movable up and down on said vertical shaft and so connected to the ejector arm as to move it longitudinally in the carrier, a sprocket-drum in the upper part of the cabinet, a belt numbered to correspond with said compartments connected to said carrier and passing over and operated by said drum, means for rotating said drum, and a spring detent operating on the drum to control the rotation thereof.

In testimony whereof I affix my signature.

LE GRAND SKINNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."