C. N. LEONARD.

CABINET.

APPLICATION FILED SEPT. 5, 1913.

1,236,324.

Patented Aug. 7, 1917.

4 SHEETS—SHEET 1.

Fig. 2.

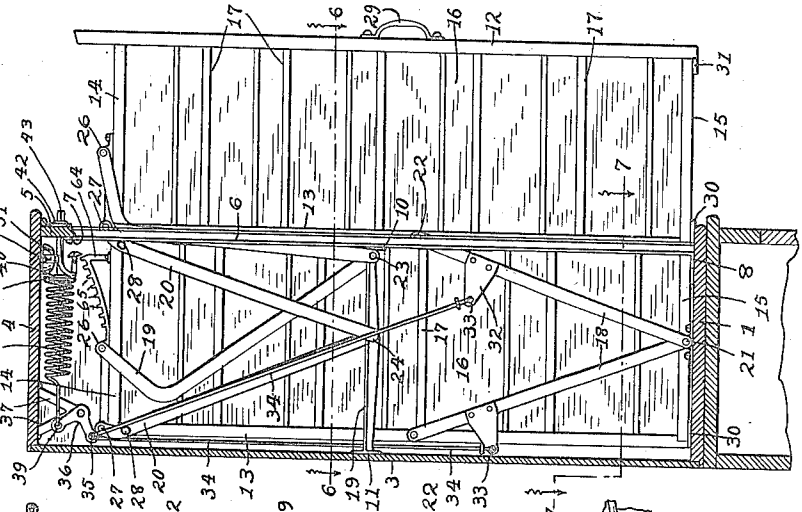
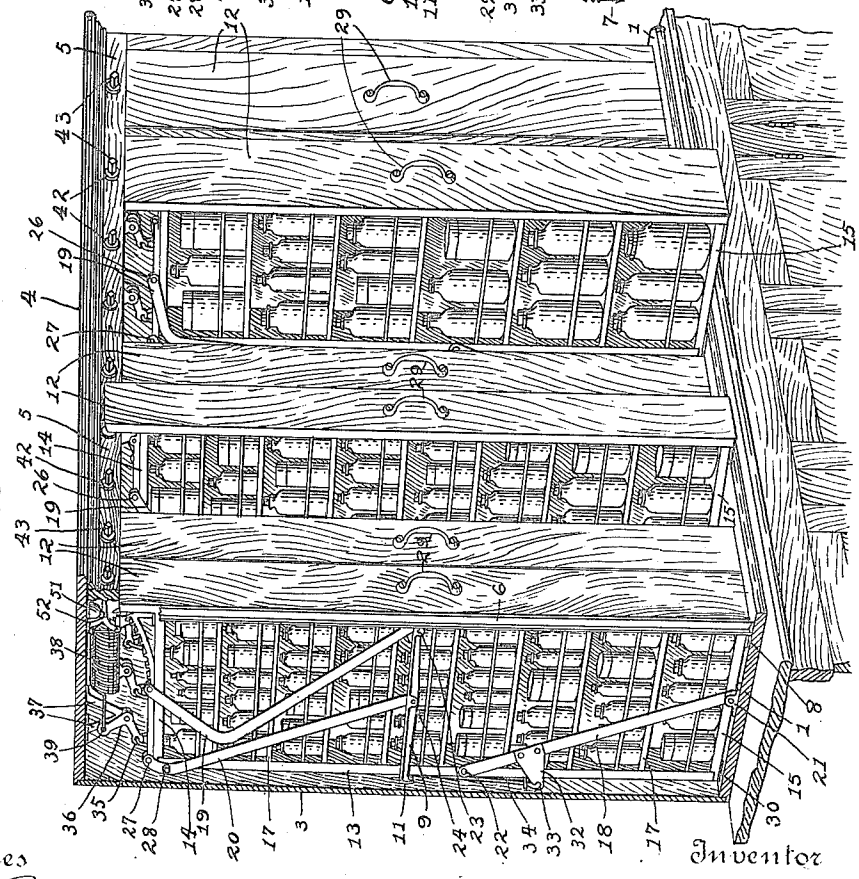


Fig. 1.



Witnesses

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4 SHEETS—SHEET 2.

Fig. 3.

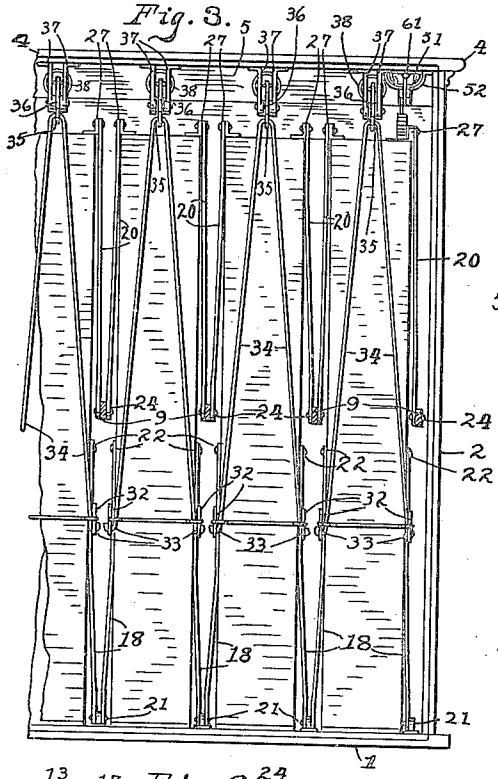


Fig. 4.

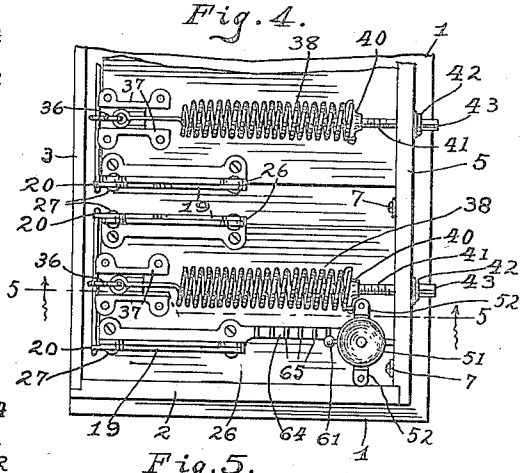


Fig. 5.

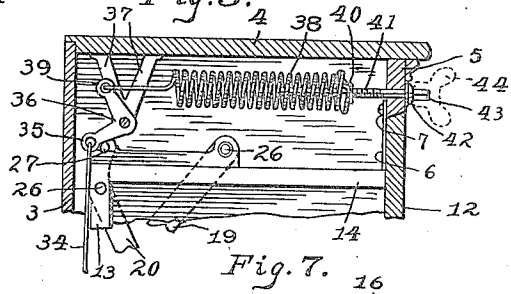


Fig. 6.

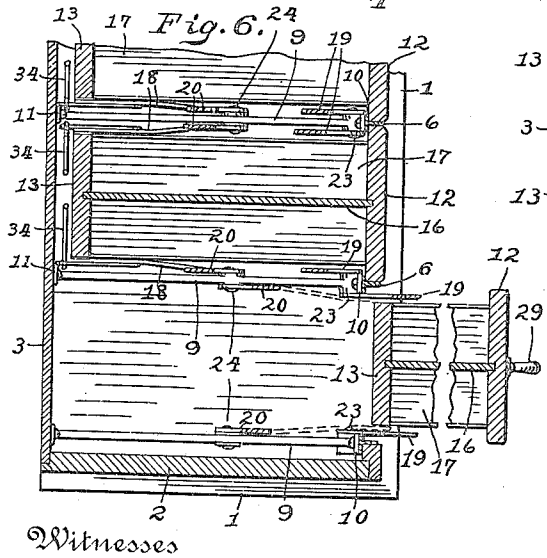
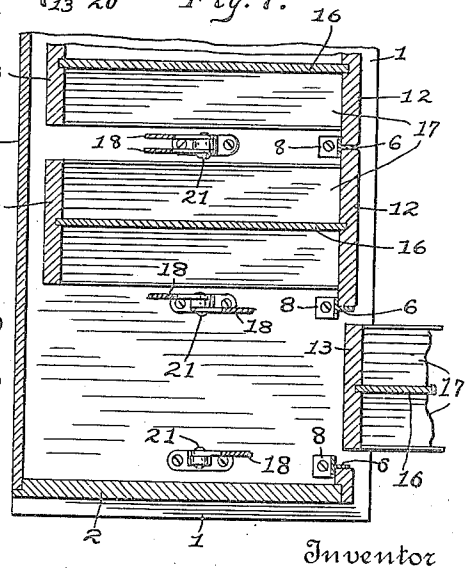


Fig. 7.



Witnesses

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4 SHEETS—SHEET 3.

Fig. 8.

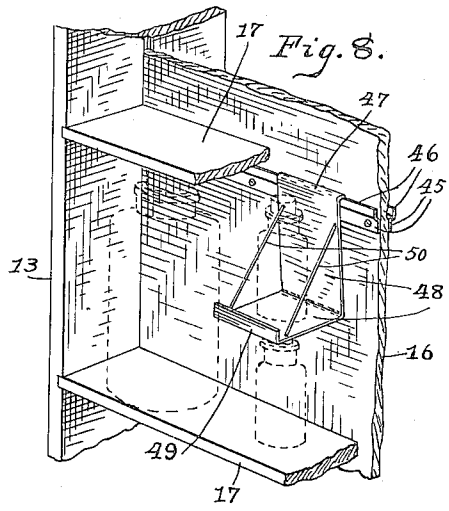


Fig. 9.

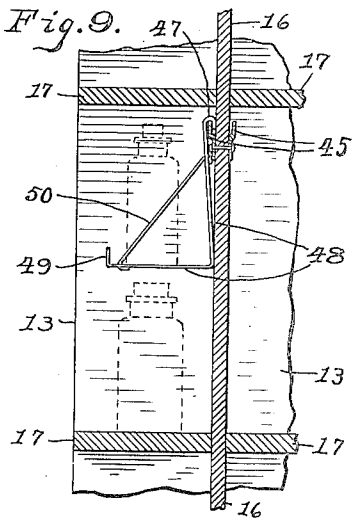


Fig. 10.

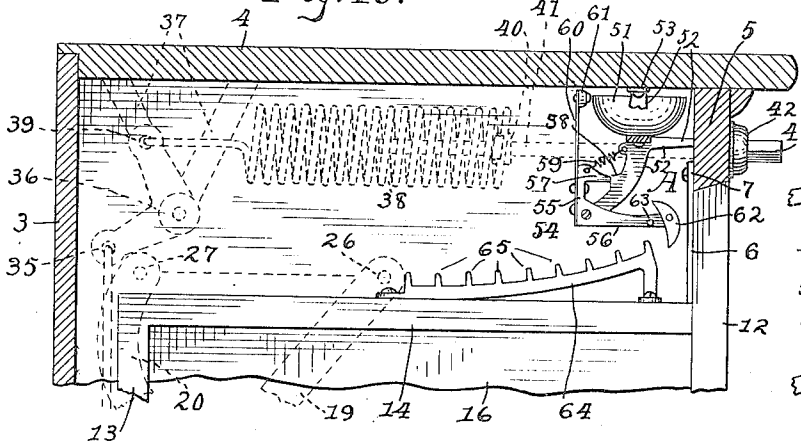


Fig. 16.

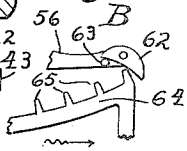


Fig. 17.

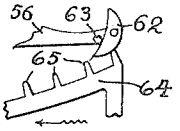


Fig. 11.

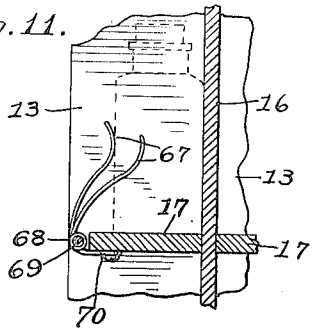
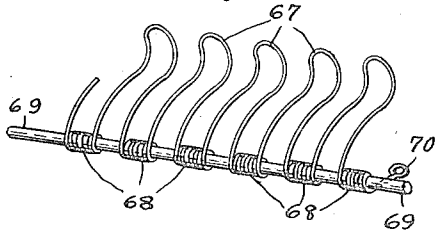


Fig. 12.



Witnesses

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4 SHEETS—SHEET 4.

Fig. 13.

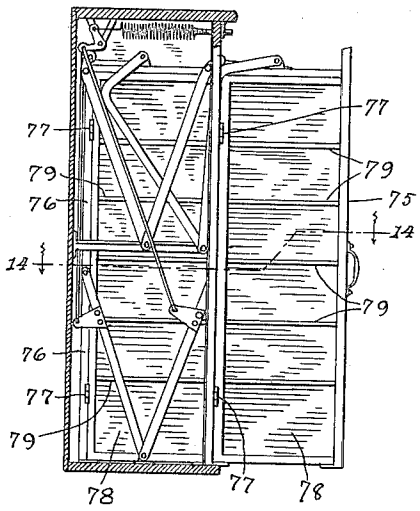


Fig. 15.

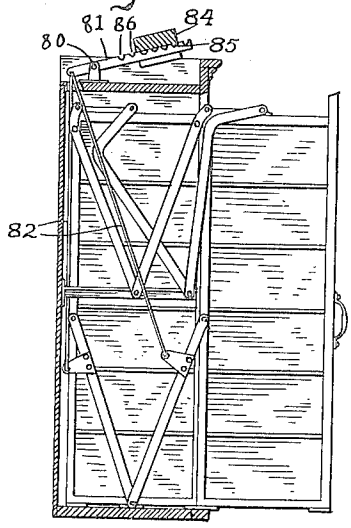
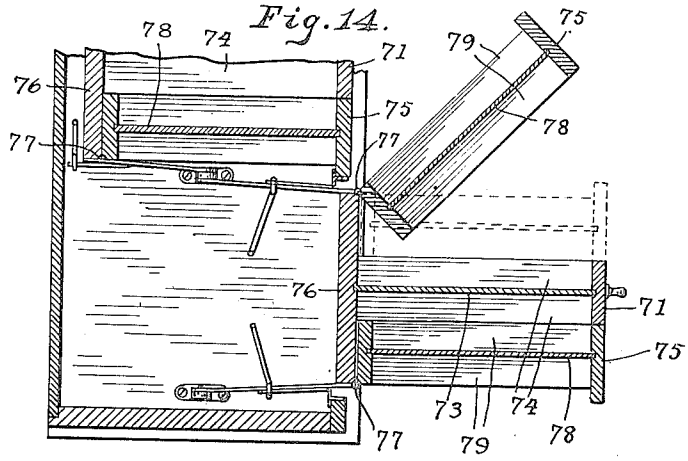


Fig. 14.



Witnesses

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UNITED STATES PATENT OFFICE.

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CABINET.

1,236,324. Specification of Letters Patent. Patented Aug. 7, 1917.

Application filed September 5, 1913. Serial No. 788,252.

To all whom it may concern:

Be it known that I, CHARLES N. LEONARD, a citizen of the United States, residing at Indianapolis, Marion county, and State of Indiana, have invented and discovered certain new and useful Improvements in Cabinets, of which the following is a specification.

My invention relates to cabinets and its object is to provide a substantially dust proof cabinet adapted for holding articles of either uniform or varying sizes, especially such as are employed in physicians' offices and in drug and notion stores, and the invention aims to provide economy of space in storing the articles and to provide means for ready access thereto, to provide effective means of a construction that is not liable to get out of order for moving the separate compartments adapted to contain the articles from their normal self-closing position to a position enabling access to the articles, also to provide simple and effective means adapted for use with the movable compartments or one or several of them, which may contain poisonous drugs, to give an automatic alarm signal, and to generally improve the construction of devices of this class.

In preferable form my invention is embodied in the cabinet hereinafter described and illustrated in the accompanying drawings.

Figure 1 is a perspective view of a cabinet embodying my invention, the left hand end being removed to show the interior and most of the tills being closed, but with one till half way out and another projected entirely out of the cabinet and in position for access to the contained articles,

Fig. 2, an elevation with the end of the cabinet removed and showing the side of one till within the cabinet and the side of one till drawn out therefrom,

Fig. 3, a rear elevation with the rear wall of the cabinet removed,

Fig. 4, a detail top plan with the top removed,

Fig. 5, a detail vertical section on line 5—5 of Fig. 4,

Fig. 6, a horizontal section looking down on the line 6—6 of Fig. 2,

Fig. 7, a detail horizontal section looking down on line 7—7 of Fig. 2,

Fig. 8, a perspective view of the rear portion of a till having a swinging substitute bracket shelf adapted to receive an article of small size,

Fig. 9, a detail vertical section of the till and bracket shelf shown in Fig. 8,

Fig. 10, an enlarged detail vertical section of the upper end of one of the tills shown in Fig. 2,

Fig. 11, a vertical sectional detail view of a till, and a continuous spring retainer for holding bottles on the shelf,

Fig. 12, a detail perspective view of said spring retainer,

Fig. 13, a vertical sectional view in a modified form of the cabinet showing a combination reciprocating and laterally swinging till,

Fig. 14, a detail horizontal section looking down on line 14—14 of Fig. 13,

Fig. 15, a vertical sectional view of a modified form of the cabinet showing a weight for balancing the tills, and

Figs. 16 and 17, detail side views of a part of the mechanism for operating the indicating means.

Referring to the drawings, the outer shell of the cabinet consists of the floor 1, sides 2 and the back wall 3, the top 4, and the top front rail 5.

A vertical T-shaped jamb-bar 6 is secured at its upper end to the top or front rail 6 at 7 and at its lower end to the floor of the cabinet at 8. A series of these jamb-bars along the front of the cabinet is provided, one between each two adjacent compartments. A series of horizontal supporting bars 9 are arranged at intervals along the cabinet and each of these bars is secured to the bar 6 at their front ends at 10 and at their rear ends to the back wall at 11.

Within the cabinet are mounted movable tills each consisting of a front upright wall 12, a rear wall 13, top 14, a bottom 15 and a side wall 16, which constitutes a partition adapted to separate the till from its adjacent till, and horizontal shelves 17, which may be secured to the front and rear walls of the till in any suitable manner. Each of these tills is connected to, guided by and held firmly in upright position by means of pivoted bars or lever arms 18, 19 and 20. The lower end of each bar 18 is pivoted in a bearing secured to the floor 1 at 21 and the upper end thereof is pivoted at 22 to the

rear wall 13 of the till. The upper bar 19 is pivoted at its lower end at 23 to the forward end of the horizontal supporting bar 9 and said pivoted bar 19 is bent or curved near its upper end and the extremity thereof is pivoted to the top 14 of the till at 26 substantially midway between the forward and rear ends of the till. The other upper bar 20 has its lower end pivoted at 24 to the fixed supporting bar 9, substantially midway between the ends of the latter and its upper end is pivoted to the top 14 at 27 substantially at the rear end of the top. As seen in Fig. 3, each of the tills is provided with a pair of each of the sets of bars 18, 19 and 20, the bars of the respective pairs being arranged parallel to one another and by such arrangement being adapted to swing the tills forward and backward in straight lines and to maintain them firmly in upright position when they are either moved within the cabinet or withdrawn therefrom for the purpose of obtaining access to the shelves, and, owing to their swinging movement and the fact that in such movement they are adapted to slightly lift the tills above the floor of the cabinet, they facilitate inward and outward travel of the tills and enable such movement to be effected without friction of the tills against the body of the cabinet. The bars 19 not only serve to aid in maintaining and supporting the till in upright position, when the same is projected, but they also constitute means for preventing the till from tilting when "on center" as it rocks on the pivots of the bars 18 and 20. With upper and lower pivoted bars, such as 18 and 20, means for preventing this tilting action are highly important.

It will be seen that the bars 18, 19 and 20 on each side of the till are also arranged to move in parallelisms, owing to the fact that lines drawn through the opposite pivots of each bar are parallel. One or both of the parallel bars 20 of each till is provided with a stop member 28, which serves as a precautionary means to prevent the till from being drawn too far out of the cabinet and also prevents any undue strain being imparted to the parallel bars 18, 19 and 20 in such projecting movement. This stop 28 may be fastened to the rear wall 13 or to the top 14 and effect the same purpose. On the front wall 12 is a handle 29 for the purpose of enabling the user to pull the till out of the cabinet and push it back therein. As shown in Figs. 6 and 7, the front wall 12 fits closely into the rabbet of the T-iron jamb-bar 6, thereby making the cabinet practically dust proof. On the bottom corners of each of the tills are cushions 30 and 31 consisting of felt or other flexible material which are adapted to protect the tills against the shock when the bottom of the till is brought down upon the bottom of the cabinet in moving the tills out to accessible position or in restoring them to closed position. Preferably the rear cushions 30 are so constructed as to be easily removed to permit the till to descend farther out of the cabinet, affording an easy method of obtaining access to the tills in mounting the parallel bars. Upon each of the parallel bars 18 is fixed a bracket 32 which bracket is provided at the end thereof with an eye 33. Adjoining the eyes of the bars of each till is a link 34, the upper end of which is pivoted in an eye 35 of a bell crank 36. This bell crank is pivotally mounted in a bracket 37 which is secured to the top 4. A link and bell crank is provided for each till. A spiral tension spring 38 is pivotally hooked into an eye 39 of one arm of the bell crank 36 and the opposite end of this spring is secured to a nut 40 which is threaded on a bolt 41. This bolt passes through the front rail 5 and on its outer end is provided with a shoulder 42 and a square head 43 to receive a wrench 44. This wrench is used for the purpose of turning the rod in order to increase or lessen the tension of the spring 38 and it may be either a socket wrench formed with wings as shown in dotted lines in Fig. 5, or, if desired, any other form of wrench may be used in lieu thereof. If the wrench of the form shown in Fig. 5 is employed it may be cast integrally with the head 42.

One or more of the tills may be provided with a supplemental bracket shelf adapted to receive a bottle or other article of small size and to occupy a space above another small article placed on the permanent shelf below the first article, as illustrated in Figs. 8 and 9. The object of this arrangement is to obtain provision for the utilization of space for articles smaller than those customarily placed upon the permanent shelves, which arrangement sometimes exists where the articles are disposed according to an alphabetical or numbered system. To enable this supplementary shelf to be employed, a bar 45 is secured to the partition 16 under the permanent shelf 17, the upper part of this bar being offset to form a rail 46, which is spaced from the partition sufficiently to permit a hook 47 of the bracket shelf 48 to be hung thereon. This bracket shelf at its front edge is provided with an upwardly turned flange 49 to prevent articles from falling off the shelf and the wire side supports 50 of the shelf serve the same purpose and also serve to support the bottom of the shelf. It will be seen that this supplementary shelf enables the space between the two large articles to be utilized for holding two or more small bottles or retainers whose height is one-half or less of the distance between two adjacent perma-

ment shelves. This supplementary shelf is preferably made of metal although it may be made of any suitable material.

For cabinets designed for the use of druggists and physicians requiring the employment of poisonous drugs it is desirable that when the receptacle containing such drug is to be removed that a danger signal should be given. For this purpose in my invention, one or more tills are set apart for holding receptacles containing poisonous drugs and to these tills an alarm bell is connected and so arranged as to ring when the till is pulled out or restored to position in the cabinet.

This alarm mechanism is shown most clearly in Figs. 10, 16 and 17 and it comprises a bell 51 mounted on a bracket 52, which is secured to the top 4 at 53 with one arm of said bracket engaging the front rail of the cabinet and another arm extending rearwardly into the cabinet. At the lower end of the rear arm of the bracket at 54 is pivoted a bell crank having arms 55 and 56, the upper arm 55 of which bell crank is provided with a detent 57 that rests against a stop lug 58 formed on the bracket 52. The detent 57 is provided with an eye to engage one end of the spring 59, the opposite end of which hooks into an eye formed on a bracket 52. The arm 55 of the bell crank has attached thereto a spring striker arm 60 which is provided at its upper end with a tapper 61 which is adapted to strike against the bell 51 to give a signal.

On the outer end of the arm 56 is loosely pivoted a detent 62, the swinging movement of which is adapted to be limited by means of a stop pin 63 fixed on the arm 56. Such stop pin serves to limit the detent in its swinging movements to either the position shown in Fig. 16 or that shown in Fig. 17, dependent upon which direction the till is being moved. In the position indicated by A in Fig. 10, the detent is idle and B indicates the position the detent will assume when the till is being pulled forward and C in Fig. 17 indicates the position assumed by the detent when the till is being pushed inwardly. On the top 14 of the till adapted to contain poisonous drugs is secured a rack bar 64, having teeth 65 that engage detent 62 when the till travels in and out of the cabinet. When a poisonous drug till is pulled out of the cabinet, it carries the rack bar with it, moving the teeth 65 in contact with the detent 62, the stop holding the said detent in the position shown at B and this movement will cause the detent to ride up on the teeth 65, thus rocking the bell crank arms 55 and 56 and moving the striker arm and its tapper away from the bell. When the point of the detent slips off from one of the teeth 65 into the space between the teeth, the spring 59 forces the arm 57, the striker arm 60 and the tapper 61 against the bell 51, thereby giving a stroke of the bell for each tooth. When the till is moved inward, the same result is effected, as seen at C, Fig. 17.

Figs. 11 and 12 illustrate a spring wire retainer 67 for the purpose of more firmly holding bottles and smaller retainers on the shelf. This retainer is preferably formed out of a single continuous piece of spring wire as shown in Fig. 12, the upper portion being adapted to press backwardly against the article on the shelf and the lower portion 68 being coiled to form a spring which surrounds a rod 69. An outer end of the spring wire is formed with an eye 70 to secure the same to the under side of the shelf 17.

For the purpose of more conveniently storing and handling a number of small articles or retainers the combination swinging and projectable till shown in Figs. 13 and 14 may be employed. This till comprises a central body 71 divided into two parts by a central partition 73 and provided with shelves 74 and it also comprises two adjoining laterally swinging bodies 75 and 76. These latter compartment bodies are hinged at 77 to the rear wall of the till and each is provided with a partition 78 and shelves 79. When the till is pulled out of the cabinet, the side compartment bodies may be swung outwardly from the fixed compartment in the center, thereby giving access to the shelves of this inner body. This combination till may be supported and operated by parallel bars and other connections similar to those described with reference to the device illustrated in Figs. 1 to 12 inclusive.

In Fig. 15, a modification of means for aiding in withdrawing or retracting the till is provided. Secured to the top of the till is a suitable bracket 80 in which is fulcrumed a lever 81 to which is pivoted a link 82 adapted to be pivotally connected to lower parallel bars of the same description as that employed in connection with the device illustrated in Figs. 1 to 12 inclusive.

At the opposite end of the lever is mounted a weight 84, having a lug 85 adapted to engage notches 86 on the lever by means of which arrangement the weight can be moved to or from the fulcrum to thereby balance the tills in proportion to the load thereon.

The operation of the device is as follows:—

When it is desired to remove an article in one of the tills, the operator pulls on the handle 29, thus drawing the till forwardly, the parallel pivoted bars swinging on their pivots to permit such movement and the spring 38 (or the weight when such is employed) assisting in the forward travel of the till, after the parallel bars have passed their fulcrum. When half way out or on center, the spring or weight is inactive.

Then after passing over center, the spring or weight takes the load on the till, assisting it to outer position.

It will be seen that as the till is swung outwardly, it will be raised slightly above the floor of the cabinet, owing to the fact that its parallel bars swing in the arc of a circle and thus a dragging friction of the till against the floor of the cabinet is avoided. In pushing the till back into place, within the cabinet, after the till has swung past center, the spring or similar returning means will again assist in the movement of the till.

Having thus described my invention, what I claim is,

1. In a cabinet, in combination with an inclosing body a till, a till supporting bar pivoted to the cabinet body at its lower end and to the upper part of the till at its upper end, and a lower bar pivoted to the cabinet and till at points respectively below the points of connection of the upper bar, and means to prevent tilting of the till as it passes center in its swinging movement on said bars.

2. In a cabinet, in combination with a till, till supporting parallel bars pivoted to the cabinet body and to the till one of said bars being disposed above the other, substantially as described.

3. In a cabinet, in combination with a till, swinging parallel bars pivoted to the cabinet body, and pivoted to the till adjacent the upper end of the latter and a lower bar parallel to the first mentioned bars and pivoted to the cabinet body, and also pivoted to said till below the first bar, substantially as described.

4. In a cabinet, in combination with an inclosing and supporting body, a till having a vertical series of shelves running from front to rear thereof, a bar pivoted at one end to the upper part of said till and at its other end to a part fixed within the cabinet substantially midway of the height thereof and a bar pivoted at its upper end to said till below said last mentioned part and at its lower end to the lower part of the cabinet body, substantially as described.

5. In a cabinet, in combination with a till adapted to be projected beyond said cabinet and moved into the same, a series of pivoted bars connected to the upper end of said till and to said cabinet at a point substantially midway of the height of the latter and a pivoted bar having its upper end connected to said till below the lower ends of the first mentioned bars and having its lower end pivoted to said cabinet, substantially at the bottom of the latter, substantially as described.

6. In a cabinet, in combination with a till having a vertical series of shelves extending from front to rear of the till, a lower pivoted bar connected to the lower end of the cabinet at one end and at its other end to the till and upper bars pivoted at their lower ends substantially midway of the height of the cabinet, one of said upper bars being pivoted substantially midway of the cabinet between the front and rear walls thereof and connected to the till near its top adjacent the rear wall thereof and the other of said upper arms being pivoted at its lower end near the front portion of said cabinet and at its upper end to the upper portion of said till adjacent the center line thereof, substantially as described.

7. In a cabinet, in combination with a till having a vertical series of horizontal shelves extending from front to rear of the till, upper supporting means pivoted to the cabinet and to the upper end of the till respectively and lower supporting means pivoted to the cabinet and to the till at substantially the center of the height thereof respectively, whereby said till may be swung outwardly on said members on an arc of a circle and maintained in upright position beyond the cabinet by said means, substantially as described.

8. In a cabinet, in combination with a till having a vertical series of shelves, said till being movable from the cabinet, pivotal means connecting said till and the cabinet and permitting a swinging movement of the till relative to the cabinet, into and out of the same and means which act to positively assist in the outward movements of the till relative to the cabinet, substantially as described.

9. In a cabinet in combination with a till having a series of shelves and movable into and beyond said cabinet a pair of lower pivoted arms pivotally connecting said till with said cabinet, a pair of upper pivoted arms pivotally connecting the rear part of the upper end of said till with the center of said cabinet and a pair of pivotal arms pivotally connecting said till at a point in advance of the connection of the last mentioned arms, with said cabinet at a point in advance of the pivotal connection of said last mentioned arms, with the cabinet, substantially as described.

10. In a cabinet in combination with a swinging till movable into and out of the cabinet, a pair of swinging bars on which said till is mounted, positive power means for both assisting in the initial part of the movement of the till inwardly and aiding the initial part of the movement of the same outwardly and means connecting said pivoted arms with said power means, substantially as described.

11. In a cabinet, in combination with a till having a vertical series of shelves extending from front to rear thereof and movable into and out of the cabinet in a line parallel with the length of the shelves, said

till comprising one or more independent compartment bodies and one of said bodies being adapted to swing on the till to remove it from the other compartment body, substantially as described.

12. In a cabinet, a swinging till, pivoted bars on which said till is supported and on which the till is adapted to swing in an arc of a circle into and out of the cabinet, a spring, and means of connection between said spring and one of said bars operable to transmit the pull of the spring to the bar on the lifting movement of the till from either position of rest toward the center of movement and to check the descent of the till as it moves from center to either position of rest.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, this third day of September, A. D. nineteen hundred and thirteen.

CHARLES N. LEONARD. [L. S.]

Witnesses:
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H. P. DOOLITTLE.