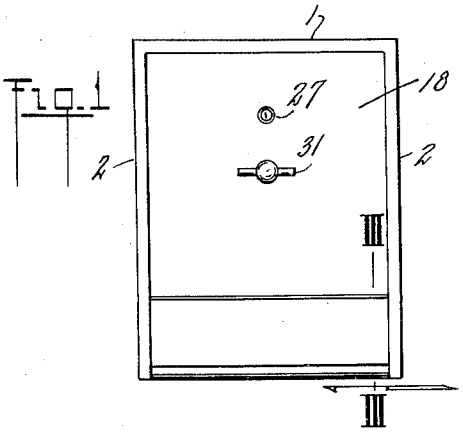
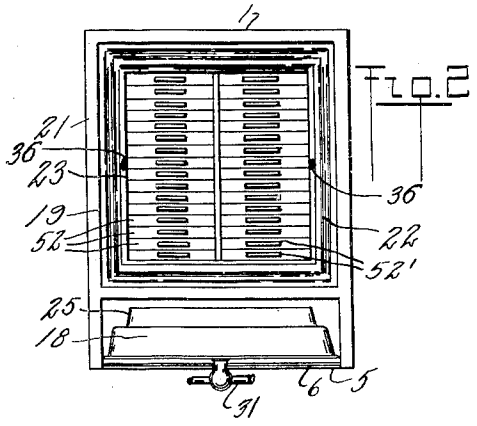
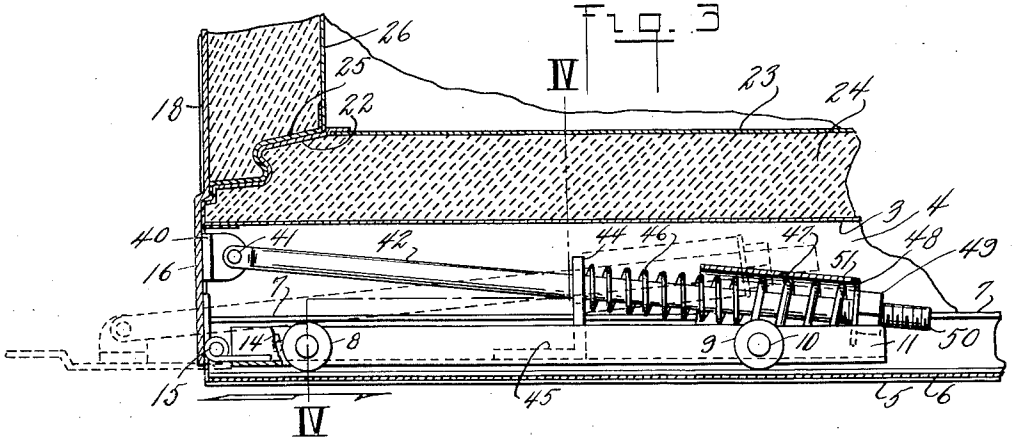
Aug. 15, 1933. C. F. MEILINK 1,922,487

CABINET

Filed Sept. 28, 1931 2 Sheets-Sheet 1







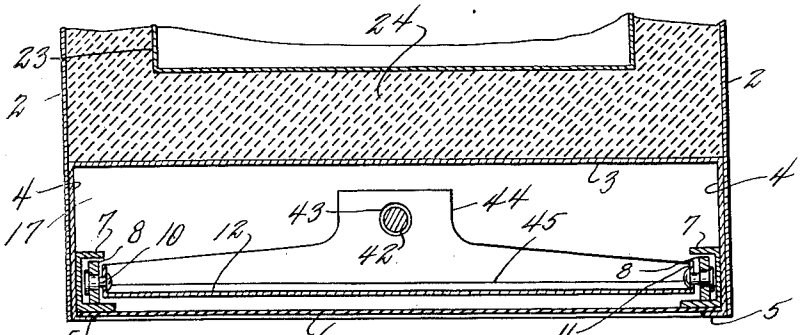


Fig. 4

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CABINET

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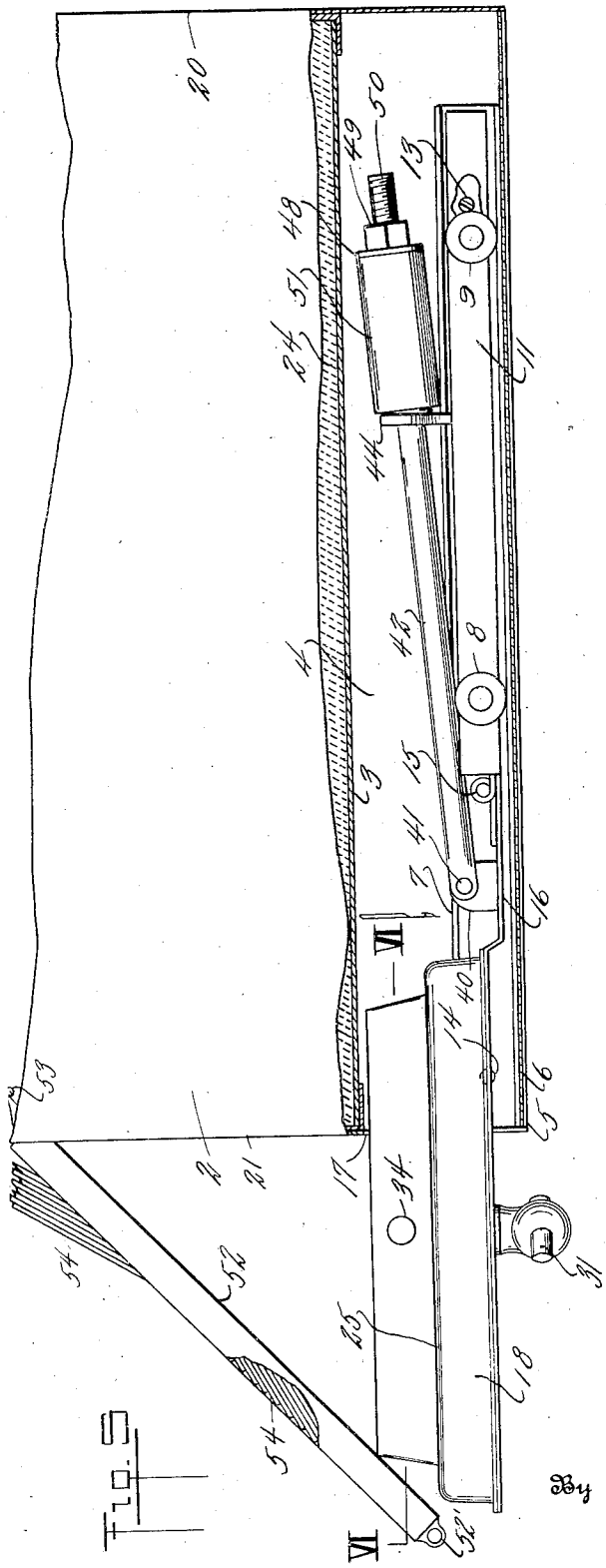


FIG. 5

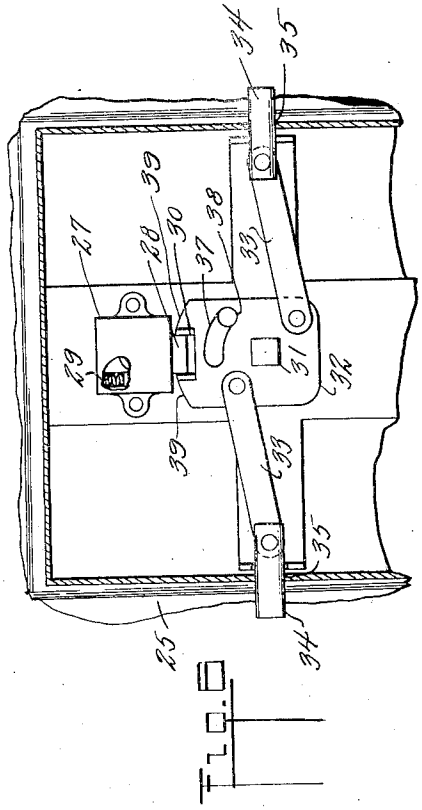


FIG. 6

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CABINET

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Application September 28, 1931
Serial No. 565,443

7 Claims. (Cl. 312—189)

This invention relates to drop door structure.

This invention has utility when incorporated with cabinets of the so-called visible index type.

Referring to the drawings:

Fig. 1 is a front view of a cabinet embodying the invention, the door being closed;

Fig. 2 is a view similar to Fig. 1 with the door open;

Fig. 3 is a section on the line III—III, Fig. 1;

Fig. 4 is a section on the line IV—IV, Fig. 3, looking in the direction of the arrow;

Fig. 5 is a fragmentary view of the cabinet in side elevation, showing the door in open position; and

Fig. 6 is a fragmentary view of the door on the line VI—VI, Fig. 5, looking in the direction of the arrow.

The cabinet involves a sheet metal outer shell comprising top 1, sides 2. In the lower portion of this outer shell 1, 2, is placed partition 3 having sides 4 extending along the sides 2 to the free ends thereof at which points these sides 4 have inwardly extending flanges 5 providing a ledge for supporting sheet metal bottom 6 upon which rests, opposing the ledge 5, channel members 7 forming a way for rollers 8, 9, on axles 10 from laterial upstanding flange 11 having therebetween platform 12. There is thus provided a carriage having its rearward travel limited by stop screw 13 against which a wheel 9 abuts. The forward limited travel of the carriage 11, 12, is determined by roller 8 abutting against removable stop screw 14. The forward end of the carriage is provided with hinge means 15 directly connected to extension 16 as a closure for way 17 between the partition 3 and the bottom 6. This extension 16 is from the lower portion of door 18 for opening 19 in the front of this cabinet.

This cabinet outer shell portion 1, 2, has a back portion 20 and a front portion 21. This front portion 21 has inward steps 22 about the opening 19 for the door 18. Above the partition 3 and from the inner portion of the steps 22 there is inner box 23 spaced from the cabinet shell portions 1, 2, 20, 21, as a double wall with a chamber therebetween herein disclosed as charged with insulation filler or packing 24 as a heat resistant means. The door 18 has, from its front, step portion 25 to door back 26 giving the door a housing for insulation resistance, with the step portions 25 complementary to the step portions 22.

The door 18 is provided with key operable lock 27. By inserting a key in the lock 27, bolt 28 may be withdrawn against the resistance of spring 29 to clear notch 30. This allows operation of spindle handle 31 to rock plate 32 and thereby through links 33 withdraw bolts 34 in openings 35 in the step portion 25 from openings 36 in the step portions 22 in effecting unlocking of the door 18. The plate 32 is provided with slot 37 with which engages pin 38 to limit this withdrawal action of the bolts 34. With the door open, it is only necessary to swing the door toward closing position and rock the spindle handle 31 to throw the bolts 34 back into the openings 36. This rocking of the plate 32 is permitted for cam portions 39 ride against the bolt 28 and thus thrust the bolt 28 into withdrawn position against the resistance of the spring 29 until the notch 30 registers with the bolt 28, when the spring 29 thrusts the bolt into self-locking position. The extension 16, spaced upward from the hinge 15, is provided with bracket 40 in which is pivot pin 41 mounting bar 42 extending slightly downwardly away from the entrance opening to the way 17 and through guide opening 43 and upwardly extending flange 44 intermediate the length of the carrier 11, 12. This upwardly extending flange 44 has flange mounting 45 on the carrier slide platform 12.

The flange 44 is stiffening means for this carrier 11, 12, against buckling under strain from the action of this bar 42 protruding through the guide 43. This bar 42 on the side of the flange 44 away from the hinge 15 has thereon yieldable means herein shown as helical compression spring 46 and relatively stronger helical spring 47. Washer 48 adjusted by nut 49 on threaded portion 50 of this bar 42 holds the spring means 46, 47, in an initially adjusted compression. In operation upon unlocking the door 18 the spindle handle 31 may be pulled outward in shifting the door 18 downward upon the hinge 15 as an axis. This movement of the door 18 toward opening position has counter-poise resistance in the helical springs 46, 47, placed under additional compression by the bar 42. As the door moves outward and its mass has greater leverage strain, the resistance of the lighter spring 46 is supplemented by the greater resistance of the spring 47. This approaches such counter-poise action as to contribute toward a smooth easy swinging of the door 18 to approximate horizontal position. In such relation the extension 16 is abutting against the platform 12, and there is a positive stop against swinging past this horizontal position in the form of sleeve 51 about the bar 42 between the washer 48 and the flange 44. In this position

of projection from the cabinet for the entire door 18 and its extension 16, the door may be given an inward thrust to have the carriage 11, 12, move inward along the channels 7 on the rollers 8, 9, and thus have the extension 16 and a desired portion of the door 18 enter the way 17. In the practice hereunder it is desired that a portion of the door 18 be left protruding as a desk or ledge so that a clerk may pull outward a slide 52 by handle 52′ and allow such to tilt downward on hinge 53, thereby exposing items of filing 54 so that a selected one may be given attention without taking the record from its location.

There is thus provided in the disclosure herein a cabinet which may be of a desired dimension as to width and height whether for a single slide or multiple of laterally disposed slides and a desired number of the slides for door height. The closure herein and the cabinet itself is of fire resistant properties and thus has commercial value in preserving such against hazard. The closure is so located in the open position therefor that these cabinets may be sectionally assembled laterally or even one above the other as a sectional office equipment adapted to varying needs as the work increases or decreases to keep the active records to a minimum. In the event of alarm the fire resistant doors may be quickly thrown into locked closure position.

What is claimed and it is desired to secure by Letters Patent is:

1. A cabinet having an opening, a door therefor, mechanism coacting in door operation embodying a movable carriage, a way therefor, said door hinged to the carriage, counter-poise means for the door comprising a bar extending from the door and spaced from the hinge to form a third class lever connection to the door, a guide for the bar, and a spring coacting with said bar and guide for effecting balanced door movement.

2. A cabinet having an opening and a way below the opening, a door for the opening having a portion providing a front for the way, a carriage in the way hinge-connected to the door way portion, counter-poise-extensible-connecting means for the door comprising a bar from the door into the way and pivotally connected to said portion toward the door from the hinge, a guide for the bar, and spring means coacting with the bar and guide for effecting balanced door movement.

3. A cabinet having an opening, a door therefor, mechanism coacting in door operation embodying a movable carriage, a way therefor, said door hinged to the carriage, counter-poise means for the door comprising a compression spring device spaced from the hinge in its connection to the door and the carriage including a bar connected to the door, a guide for the bar and a pair of springs of different resistance coacting with the bar and guide for effecting balanced door movement.

4. A cabinet having an opening, a door therefor, mechanism coacting in door operation embodying a movable carriage, a way therefor, said door hinged to the carriage, and counter-poise means for the door comprising a bar pivotally connected to the door at a position spaced from the hinge, a guide for the bar on the carriage at a position spaced from the hinge, and spring means coacting with the bar and guide for effecting balanced door movement.

5. A cabinet having an opening, a door therefor, mechanism coacting in door operation embodying a movable carriage, a way therefor, said door hinged to the carriage, and counter-poise means for the door comprising a bar pivotally connected to the door at a position spaced from the hinge, a guide for the bar on the carriage at a position spaced from the hinge, and compression spring means on the bar abutting the guide on the side away from the door.

6. A cabinet having an opening, a door therefor, mechanism coacting in door operation embodying a movable carriage, a way therefor, said door hinged to the carriage, and counter-poise means for the door comprising a bar pivotally connected to the door at a position spaced from the hinge, a guide for the bar on the carriage at a position spaced from the hinge, a compression spring about the bar abutting the guide on the side away from the door, and adjusting means on the bar for the spring.

7. A cabinet having an opening, a door therefor, mechanism coacting in door operation embodying a movable carriage, a way therefor, limit stop means for the carriage in the way, a door hinged to the carriage, and counter-poise means for the door comprising a bar pivotally connected to the door at a position spaced from the hinge, a guide for the bar on the carriage at a position spaced from the hinge, a compression spring about the bar abutting the guide on the side away from the door, adjusting means on the bar for the spring, and stop limit means for the spring compression.

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