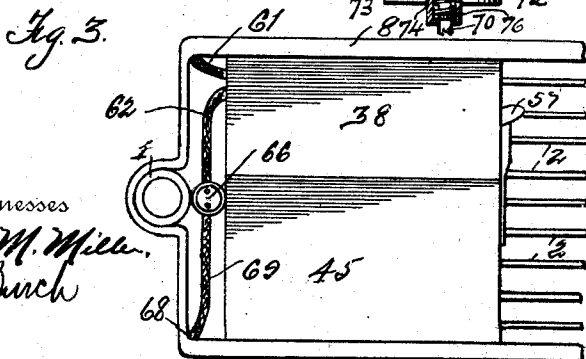
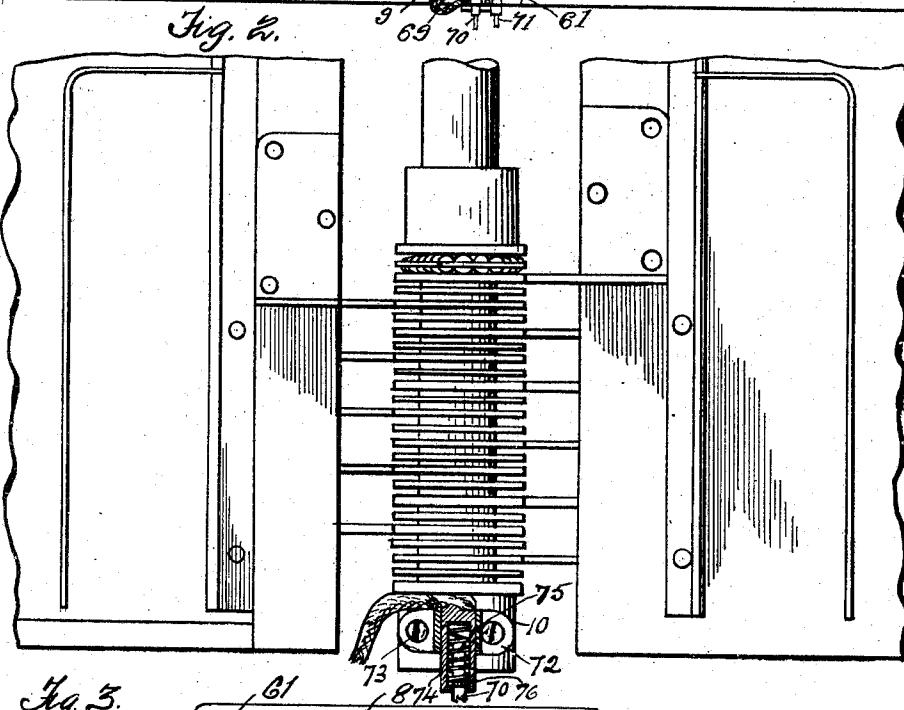
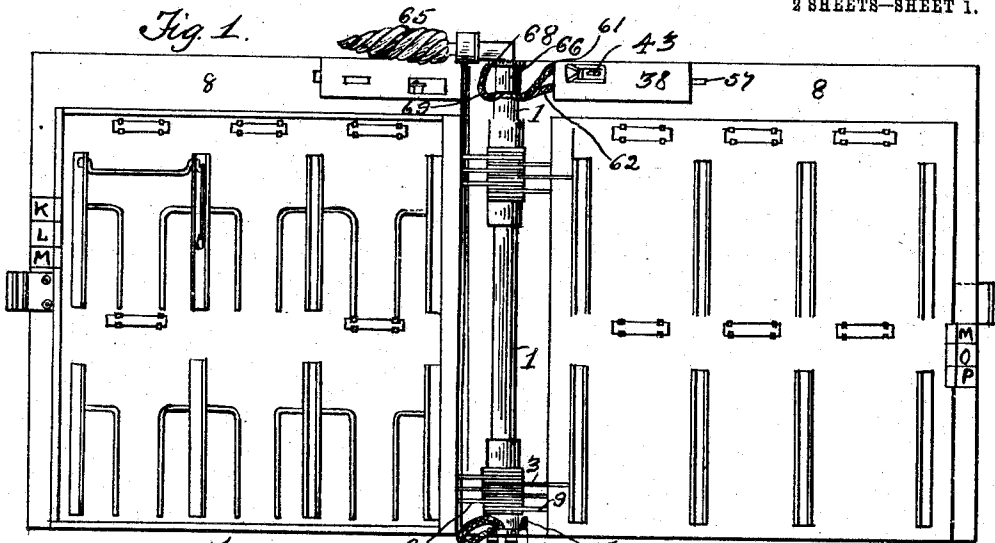


J. E. BENJAMIN.
BOOK FORM BILL FILE.
APPLICATION FILED JAN. 11, 1909.

947,051.

Patented Jan. 18, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 6.

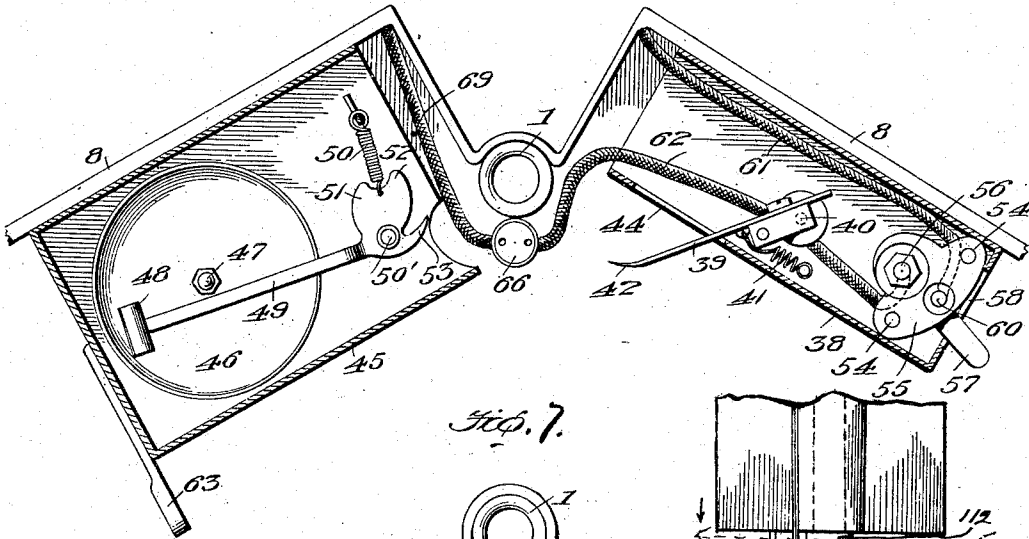


Fig. 7.

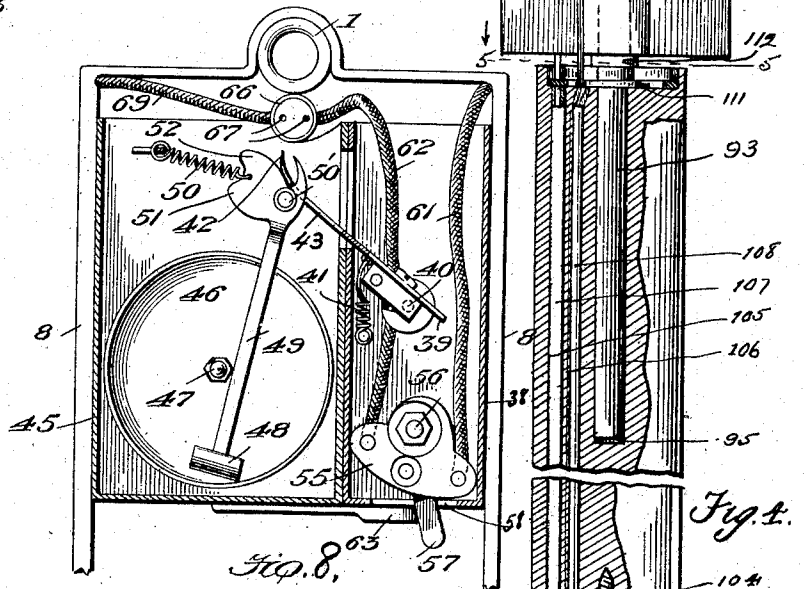


Fig. 5.

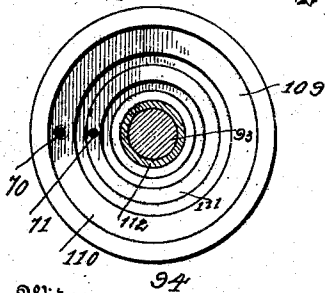


Fig. 8.

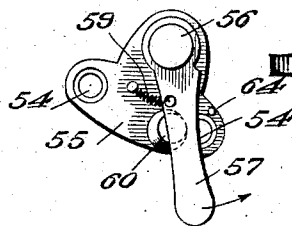
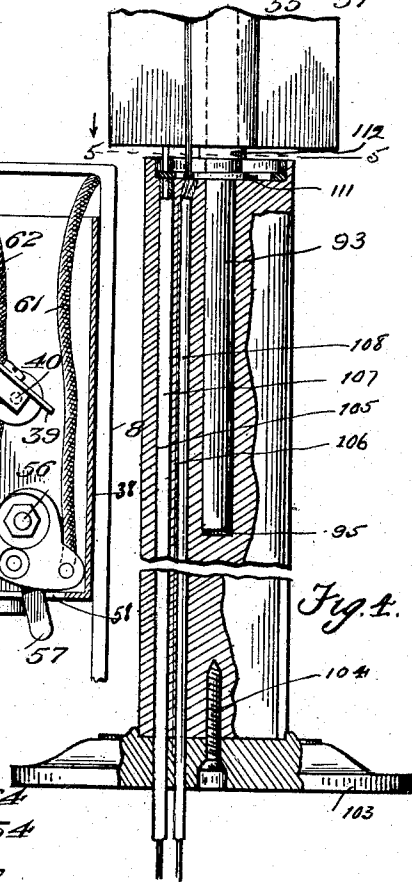


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH E. BENJAMIN, OF ROCHESTER, NEW YORK.

BOOK-FORM BILL-FILE.

947,051.

Specification of Letters Patent.

Patented Jan. 18, 1910.

Application filed January 11, 1909. Serial No. 471,762.

To all whom it may concern:

Be it known that I, JOSEPH E. BENJAMIN, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Book-Form Bill-Files, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention relates to new and useful improvements in bill-files made in book form; and it has for its object among others, to provide a file of that class with an electric light and an alarm controlled by the opening and closing of the file.

I aim further at improvements in the details of construction whereby the manufacture is facilitated and the usefulness of the parts enhanced.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out by the appended claims.

The invention, in its preferred form, is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification and in which—

Figure 1 is a view of the bill file thrown open. Fig. 2 is an enlarged detail with portions of two of the leaves broken away. Fig. 3 is a detail in plan. Fig. 4 is an enlarged detail of the pedestal with portions broken away and parts in vertical section. Fig. 5 is a horizontal section on the line 5—5 of Fig. 4, looking in the direction of the arrow. Fig. 6 is a perspective detail of the bell mechanism with the parts open. Fig. 7 is a view showing the same parts in their closed position. Fig. 8 is a reverse side elevation of the device for making and breaking the circuit for the illuminator.

Like numerals of reference indicate like parts throughout the several views.

1 is a tubular member which constitutes the means about which the hinges of the leaves are mounted for movement, and also the means for receiving the spindle or other support by which the book is mounted for revolution about said spindle as a center.

2 are the leaves of suitable material, in this instance shown as provided with suitable devices for holding sales-slips and other devices generally required in account books, but, as no claim is made thereto, a

detailed description thereof is not deemed necessary.

3 are the hinge members.

8 are the covers and 9 the hinge members therefor.

In order to sound an alarm each time the file is opened, I provide a bell mechanism which may be located at any suitable point on the file, in this instance, being shown as at the upper portion thereof on the covers 8 upon opposite sides of the hinges thereof.

This mechanism comprises a casing 38 secured in any suitable manner to one of the covers and containing not only a portion of the bell mechanism but also the switch or controller for the illuminator, soon to be described, and the necessary wires forming the connection between the same and the pedestal and other parts. As shown clearly in Figs. 6 and 7, the mechanism within this casing comprises a member 39 pivotally mounted, as at 40, within the casing and acted upon by a spring 41 secured at one end to the wall of the casing and at the other end to the said member; the free end of said member is slightly curved, as shown at 42, and is provided with a slot, as seen at 43 in Fig. 1. The spring 41 serves to hold this catch or trip finger 39 normally in a forward position so as to catch the slender curved point of the hammer lever now to be described. This trip finger 39 works through a slot 44 in the casing, as seen in Figs. 1, 6 and 7. The coöperating members of the bell mechanism are arranged within a casing 45 secured to the opposite cover and comprising a bell 46 secured within the casing by any suitable means, as a bolt or the like 47, and a hammer 48 carried by a hammer arm 49, which is pivotally mounted, as at 50', within the said casing 45. A spring 50, suitably secured at one end within the casing and at its other end connected to the lateral extension 51 of the hammer arm, serves to normally return the hammer to position to strike the bell when not otherwise restrained. The hammer arm or lever is formed with a cam portion 52 and with a slender curved point or member 53. When the file is closed, the parts are in the position in which they are seen in Fig. 7, the curved member 53 of the hammer arm or lever being received within the slot 43 of the trip finger 39. As the file is opened, the cam

portion 52 crowds the curved end 42 of the trip lever or finger 39 off of the hook 53 to release the same, when the spring 50 acts to move the hammer arm so as to cause it to strike the bell. As the center of motion of the two parts of the file when opened is at the center of the tubular member 1, or practically so, the casing 38, and its contained parts, do not move straight away from the casing 45, but turn to an angular position with relation thereto, the swinging motion moving the trip finger 39 in such a manner as to cause its extreme end to press the cam portion 52 and so swing the trip finger 39 off of the hook 53 and thus release it, so as to allow the spring 50 to act. The action of the trip finger 39, when the casing 38 moves away from the casing 45, is somewhat that of a lever, the fulcrum being the bearing point between the point of the trip finger and the cam member 52 of the hammer arm. As the file is closed, the trip finger is moved by its engagement with the hook and cam portion, so as to engage with its slot over the hook, as indicated in Fig. 7. A slight pull on the cover is all that is required to open the file and disengage the trip finger from the hook of the hammer arm and thus the bell is rung each time the file is opened.

Within the casing 38 is secured, in any suitable manner, as by screws or other means passed through openings 54 in the same, a block 55 of hard rubber or any other suitable insulating material. Mounted for movement upon a pivot 56 suitably held in said block, is an arm 57 which projects through a slot 58 in the end of said casing, as seen clearly in Figs. 6 and 7 and also in Fig. 1. A light spring 59 holds the said arm 57 normally against a contact 60, as seen clearly in Fig. 8, to complete the circuit. The current wires 61 and 62 are connected with the members 56 and 60 in the usual manner, so that the circuit will be continued through the projecting arm 57. A finger 63, rigid with the cooperating end of the casing 45, projects sufficiently to engage the arm 57 when the file is closed so as to move it in the direction of the arrow, Fig. 8, away from contact with the contact 60, and thus break the circuit. A suitable stop pin 64 is provided to limit the movement of the arm 57. As soon as the file is opened, the finger 63 is moved away from its contact with the arm 57, when the spring 59 immediately exerts its power and pulls the arm over into engagement with the contact 60, so as to complete the circuit and light the electric light 65, which is mounted upon the top of the support 66 suitably supported adjacent the upper end of the tubular member 1 and having the openings 67 into which extend pins or projections depending from the arm 68 carrying the electric lamp. The wire 62 con-

nects with a contact disposed in alinement with one of said openings 67 and another wire 69 forms a suitable connection with the other, so that when the pins of the arm 68 are in position in the openings, the circuit will be completed and the light turned on as soon as the file is opened, and shut off when the file is closed, by reason of the engagement of the finger 63 with the arm 57, moving the latter out of contact with the contact 60 and shutting off the current. The wire 69 connects with the cover of the file, passing down through the corner of the same and connecting at the bottom of the file with a pin 70, as seen clearly in Fig. 1. The wire 61 passes down through the corner of the opposite cover and connects with another pin 71 at the bottom of the file, as shown clearly in Fig. 1. These two pins serve a function which will now be described, in connection with the pedestal. The pins are clamped or otherwise secured to the tubular member. In Fig. 2, the clamp 72 is shown as secured to the lowermost collar 10 on the tubular member 1 by screws 73, the pin 70 having one end received within a tubular portion 74 and within said tubular portion is a spring 75 acting upon a collar 76 of the pin and tending normally to force the pin outwardly to allow it to readily yield upward whenever occasion may require. This electric light or illumination is designed to be lifted off of its seat when it is desired to inclose the file in a safe during the night.

The pedestal 94 may be of any desired form or contour other than as herein described. It is shown in Fig. 4 as having a base 103 in which the body portion is secured by a central screw 104 and this portion, as well as the base, is provided with vertical passages 105 and 106 through which pass the current wires 107 and 108 respectively, all as shown clearly in Fig. 4. These current wires are designed to be connected with any suitable source of electricity. The upper end of the pedestal 94 is counterbored to form a shallow chamber 109, as seen clearly in Fig. 4, at the bottom of which are secured two metallic rings 110 and 111, one within the other, the two rings being separated and concentric, as seen clearly in Figs. 4 and 5. The current wire 107 leads to the ring 110 and the current wire 108 leads to the ring 111, as seen best in Fig. 4. These current wires are of known kind, insulated with some fibrous or insulating material in the ordinary manner. The pins 70 and 71 project and rest respectively on these electrified rings so as to conduct the current to the illuminator, as will be readily understood upon reference to Figs. 4 and 1. These metallic rings 110 and 111 are continuous, as shown best in Fig. 5 which is a view looking downward from the top upon the

pedestal with the pins shown in section, so that the current will be continuous or unbroken in whatever position the file may be when revolved upon the pedestal. When the file is mounted on the pedestal, as seen in Fig. 4, the weight thereof is carried upon a small separating ring 112 resting directly upon the upper end of the pedestal within the inner ring about the depending stem 93.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as new is:—

1. A revoluble book form bill-file, an illuminator therefor, an electric circuit therefor, and means controlled by and at the time of the opening and closing of the file and revoluble therewith for making and breaking the circuit controlling said illuminator.

2. A book form bill-file provided with an illuminator and an alarm, and means movable with and for controlling both by and at the time of the opening and closing of the file.

3. In a bill-file, a pedestal, a bill-file rotatably mounted thereon, contact rings on the pedestal, electrical connections therewith, an illuminator operatively connected with said connections, and pins on the file resting on said rings to give current to said illuminator.

4. In a bill-file, a pedestal, a bill-file rotatably mounted thereon, contact rings on the pedestal, electrical connections therewith, an illuminator operatively connected with said connections, and pins on the file resting on said rings to give current to said illuminator, said pins being yieldingly mounted.

5. In a bill-file, a pedestal, a bill-file rotatably mounted thereon, contact rings on the pedestal, electrical connections therewith, an illuminator operatively connected with said connections, pins on the file resting on said rings to give current to said illuminator, and an alarm actuated by the opening of the file.

6. In a bill-file, a pedestal, a bill-file rotatably mounted thereon, contact rings on the pedestal, electrical connections therewith, an illuminator operatively connected with said connections, pins on the file resting on said rings to give current to said illumi-

nator, and an alarm actuated by the opening of the file, said pins being yieldingly mounted in the direction of their length.

7. In a bill-file, a pedestal having a chamber at one end, concentric contact plates mounted in said chamber, electrical connections with said plates, an illuminator operatively connected with said connections, and a bill-file rotatably mounted on said pedestal and having pins adapted to ride upon said contact plates and having electrical connections to supply current to the illuminator.

8. In a bill-file, a pedestal having a chamber at one end, concentric contact plates mounted in said chamber, electrical connections with said plates, an illuminator operatively connected with said connections, and a bill-file rotatably mounted on said pedestal and having pins adapted to ride upon said contact plates and having electrical connections to supply current to the illuminator, said pins being yieldingly mounted in the direction of their length.

9. In a bill-file, a pedestal having a chamber at one end, concentric contact plates mounted in said chamber, electrical connections with said plates, an illuminator operatively connected with said connections, a bill-file rotatably mounted on said pedestal and having pins adapted to ride upon said contact plates and having electrical connections to supply current to the illuminator, and a separating ring between said pedestal and bill-file.

10. In a bill-file, a pedestal having a chamber at one end, concentric contact plates mounted in said chamber, electrical connections with said plates, an illuminator operatively connected with said connections, a bill-file rotatably mounted on said pedestal and having pins adapted to ride upon said contact plates and having electrical connections to supply current to the illuminator, and a separating ring between said pedestal and bill-file, said pins being yieldingly mounted in the direction of their length.

In witness whereof, I have hereunto set my hand this 9th day of January, 1909, in the presence of two subscribing witnesses.

JOSEPH E. BENJAMIN.

Witnesses:

E. B. WHITMORE,

A. M. WHITMORE.