B. G. RAND.

CARD INDEX CABINET.

APPLICATION FILED FEB. 13, 1920.

1,407,948. Patented Feb. 28, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

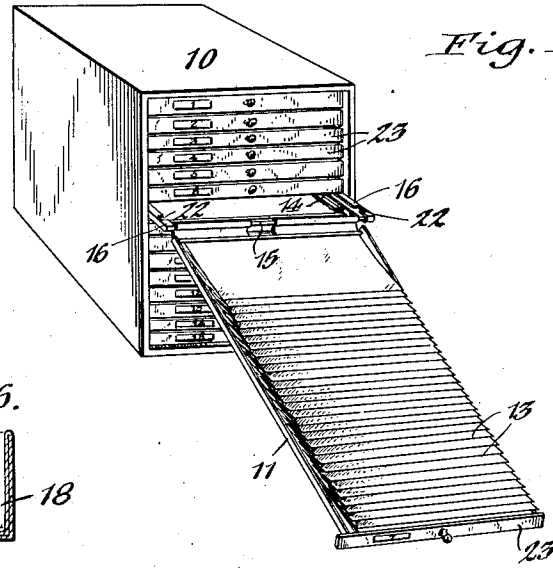


Fig. 6.

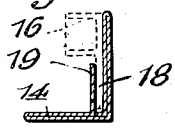


Fig. 7.

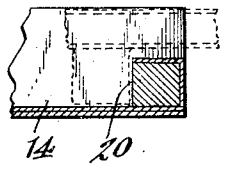


Fig. 2.

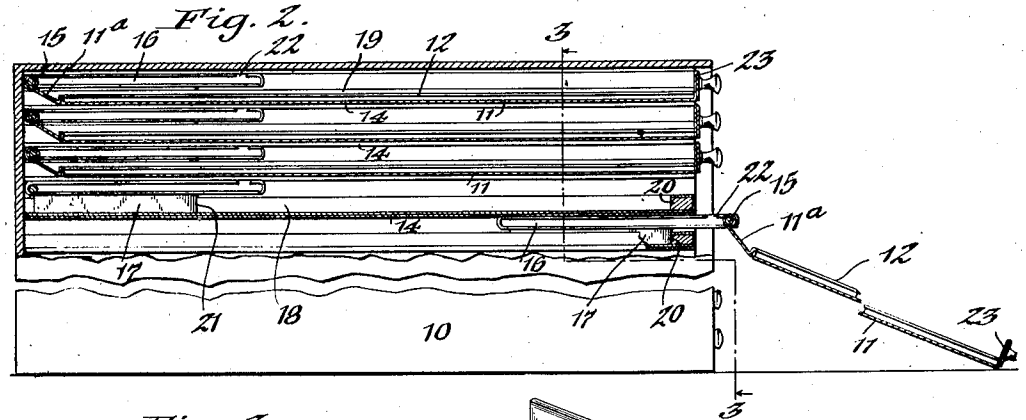


Fig. 3.

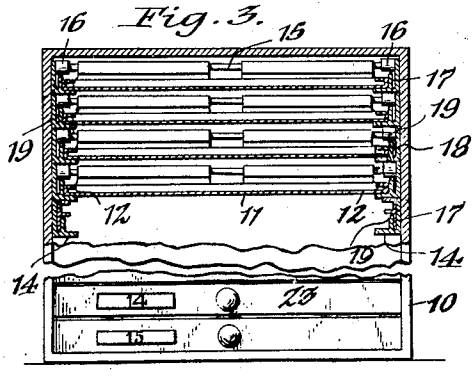


Fig. 4.

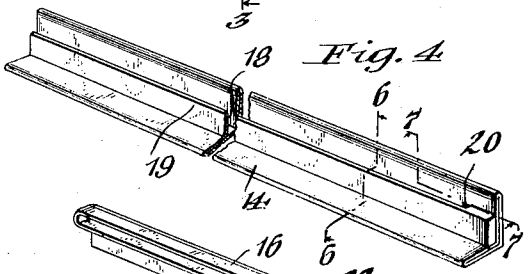
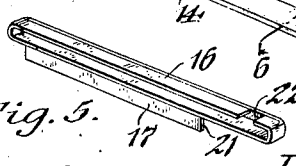


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 8.

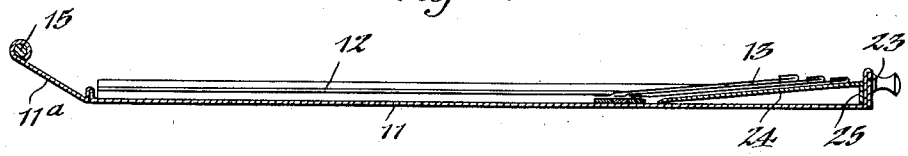


Fig. 9.

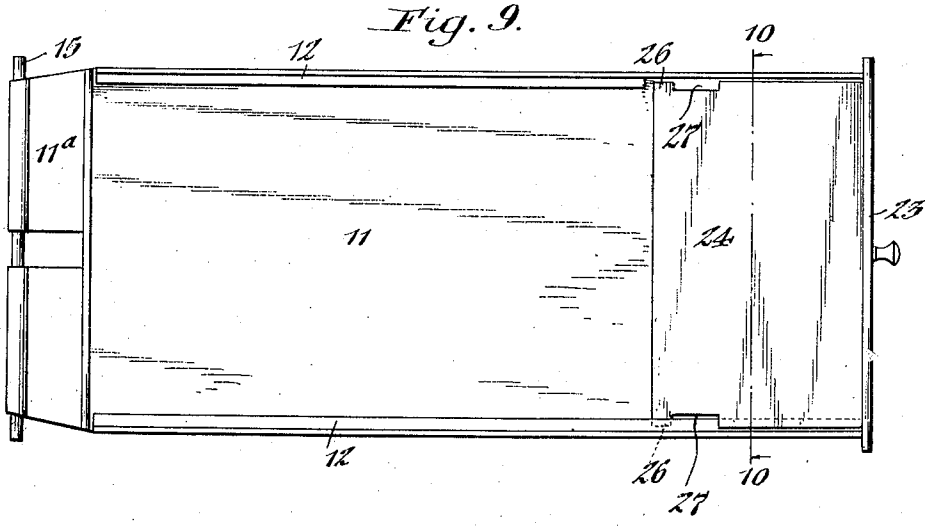
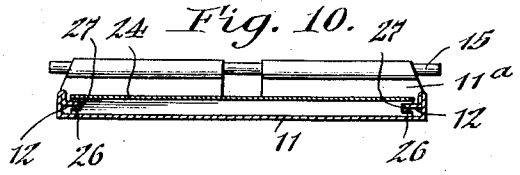


Fig. 10.



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UNITED STATES PATENT OFFICE.

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CARD-INDEX CABINET.

1,407,948 Specification of Letters Patent. Patented Feb. 28, 1922.

Application filed February 13, 1920. Serial No. 358,543.

To all whom it may concern:

Be it known that I, BENJAMIN G. RAND, a citizen of the United States, residing at North Tonawanda, in the county of Niagara and State of New York, have invented new and useful Improvements in Card-Index Cabinets, of which the following is a specification.

This invention relates to an index file or cabinet for signature cards, account cards and other index matter.

It is one of the objects of my invention to provide a cabinet of this character which enables the drawers or panels containing the cards to be withdrawn from the cabinet and supported in an inclined position for convenient inspection or posting.

A further object is to provide improved means for enabling each drawer or panel to be entirely detached or removed from the cabinet to permit the same to be carried about if desired.

Another object of the invention is to provide a cabinet of this kind which is simple and compact in construction, which affords maximum protection against fire and which can be produced at a moderate cost.

A further object is to provide the panels with simple means for facilitating the elevation of the free edges of those cards located adjacent to the front walls of the panels.

In the accompanying drawings: Figure 1 is a perspective view of the improved cabinet, showing one of the panels withdrawn and supported in an inclined position. Figure 2 is a sectional elevation thereof, on an enlarged scale. Figure 3 is a cross section on line 3—3, Fig. 2. Figure 4 is an enlarged perspective view of one of the panel guides. Figure 5 is an enlarged perspective view of one of the channeled slides. Figure 6 is a cross section on line 6—6, Fig. 4. Figure 7 is a fragmentary longitudinal section on line 7—7, Fig. 4. Figure 8 is a vertical longitudinal section of one of the panels, on an enlarged scale. Figure 9 is a top plan view thereof, partly in section. Figure 10 is a cross section on line 10—10, Fig. 9.

Similar characters of reference indicate corresponding parts throughout the several views.

10 indicates the cabinet which is preferably constructed of furniture steel and closed on all sides except the front side, which is open to permit of the insertion and withdrawal of the drawers or panels 11 containing the index matter. These panels may be made of sheet metal, such as tin, or other suitable material, and are provided with inwardly-turned flanges 12 at their longitudinal edges which form channels or guides for the customary overlapping card-suping holders or leaves 13, in or between which the index cards are removably placed.

Each panel is supported in the cabinet on a pair of guides or supports 14 preferably having the form of angle-irons, and secured to the opposing side walls of the cabinet by spot welding or otherwise. It will be noted that these guides do not extend from side to side of the cabinet, but are comparatively narrow, leaving a clear space between them. Each panel is provided at its rear end with an upward and rearward extension 11^a carrying a transverse pivot-rod 15 whose ends engage channeled slides or slide-bars 16 suitably mounted to slide longitudinally on the panel-guides 14. As shown in the drawings, each slide bar is preferably closed at both ends and is provided with a depending tongue 17 which engages a corresponding groove or channel 18 arranged in the panel guide and extending lengthwise thereof. In the preferred construction shown, this groove is formed between the upright flange of the guide and a longitudinal wall or flange 19 extending upwardly from the bottom flange of the guide. By this construction, the slides 16 are elevated above the plane of the panels 11. Adjacent superposed panel-guides 14 are sufficiently spaced apart to admit the slides between the upper edges of the inner channel-walls 19 and the undersides of the panel guides next above.

The front end of each channel 18 is provided with a suitable stop or abutment 20 which is adapted to be engaged by the front edge 21 of the slide-bar tongue 17 when the panel is withdrawn to the inclined position shown in Figs. 1 and 2. The tongue 17 does not extend the full length of the slide bar but the front edge thereof stops short of the front end of said slide bar to permit the latter to project a suitable distance beyond the front of the cabinet when the panel is fully withdrawn, as shown clearly in Fig. 2. When this is done, the pivot rod 15 of the panel first travels idly in the channeled slide bar 16 until it strikes the closed front end of said slide bar, whereupon the latter is caused to follow the panel and be drawn

out with it. The forward movement of the slide-bar is arrested by the engagement of its front edge 21 with the stop 20 in the channel 18. The panel being now fully drawn out, the user allows it to assume an inclined position with its front edge resting on the table or other support on which the cabinet is placed,—the extended slides practically forming brackets from which the rear end of the panel is suspended. By this construction, the several panels may be readily withdrawn and firmly supported in a position in which they afford easy reference to the record or account cards and facilitate posting from them.

To permit the panels to be entirely detached or removed from the cabinet when it is desired to carry the same about for various purposes, each slide bar is provided in its upper side adjacent its front end with a recess or opening 22 through which the ends of the pivot rod 15 are allowed to pass. Thus, when complete removal of a panel is desired, the same is withdrawn from the cabinet in the manner heretofore described, until the pivot rod registers with the openings 22 of the companion slides, whereupon the rear end of the panel is raised to withdraw the rod from said bars. Obviously, the insertion of each panel in the cabinet is accomplished by reversing these operations, the pivot rod of the panel first sliding rearwardly in the channels of the slides until it encounters the rear ends of the channels when the slides are caused to follow the panel until it strikes the rear wall of the cabinet.

The rear wall of the cabinet forms a rear stop for the slide bars which insures a uniform closing of all the panels. The front wall 23 of each panel preferably extends upwardly in close proximity to the underside of the adjacent panel, to afford a substantially dust proof cabinet, as well as maximum protection in case of fire.

As shown in Figs. 3 and 6, the guides 14 in their preferred form have no upper horizontal flanges but only horizontal base flanges. This construction together with the use of such separated guides instead of shelves extending across the panels permits any of the panels to rise from their guides. Hence, if a pencil, eraser or other object should be accidentally dropped between the cards of a panel and the latter then closed, the cards would not be crushed or otherwise injured, because the bulging cards would simply elevate the panel next above which is equally free to rise.

To facilitate lifting and separating the cards near the front walls of the panels, each panel is preferably provided in its front portion with an inclined false bottom or bottom-plate 24 whose head is located slightly below the upper edge of said wall and which extends rearwardly a suitable distance therefrom. In the construction shown, this bottom plate is provided at its front end with a depending flange or foot 25 which abuts against said front wall and rests upon the main bottom of the panel, while the opposite edge of the bottom plate is provided with laterally-projecting tongues 26 which are confined under the inturned side flanges 12 of the panel. These tongues are preferably formed by cutting notches 27 in the side edges of the bottom plate near its rear edge.

By thus elevating the free edges of the front cards of the panels nearly to the top of the front walls of the panels, a person can conveniently insert his fingers under the cards to fold them back.

This improved cabinet is very compact, affording a maximum capacity within a minimum amount of space. By arranging the slides 16 above the panels instead of at their sides and in the same plane therewith, the panels may be made of correspondingly greater width, increasing the capacity of the cabinet accordingly.

It will be understood that this invention may be conveniently applied to drawers and similar devices of different forms and may be variously modified within the scope of the claims without departing from the spirit of the invention.

I claim as my invention:

1. The combination of a cabinet having a panel slidable therein, slides guided in said cabinet, and means for pivotally mounting said panel on said slides, said panel being independent of and detachable from said slides.

2. The combination of a cabinet having a movable panel therein, slides guided in said cabinet and disposed above the plane of said panel, said panel being capable of a limited sliding movement relatively to said slides and pivotally attached thereto to swing vertically thereon.

3. The combination of a cabinet having a movable panel therein, channeled slides guided in said cabinet and disposed above the plane of said panel, means for pivotally mounting said panel on said slides, and means for limiting the forward movement of said slides, the latter being movable beyond the front face of the cabinet.

4. The combination of a cabinet having a movable panel therein, means for supporting said panel in said cabinet, channeled slides closed at their ends and guided on said supporting means and disposed above said panel, and means for pivotally mounting the panel in the channels of said slides.

5. The combination of a cabinet having side guides, a sliding panel at its longitudinal edges supported on said guides, slides mounted on said guides above said panel,

said panel being capable of a limited sliding movement relatively to said slides, means for pivotally connecting said panel to said slides, and means carried by said guides for limiting the forward movement of said slides.

6. The combination of a cabinet having a movable panel therein, supports for said panel, channeled slides guided on said supports, and disposed above said panel, a pivot rod carried by said panel and engaging said channeled slides, and means on said supports for limiting the forward movement of said slides, said panel being independent of and detachable from said slides.

7. The combination of a cabinet having a movable panel therein, supports for said panel secured to the opposing walls of said cabinet and each provided with a groove, slides each provided with a depending tongue engaging the groove of the corresponding support, and means for pivotally attaching said panel to said slides.

8. The combination of a cabinet having a removable panel therein, supports for said panel secured to the opposing walls of said cabinet and each provided with a groove, slides mounted on said supports disposed above the plane of said panel and each provided with a depending tongue engaging the groove of the corresponding support, a pivot-rod carried by said panel and operatively connected with said slides, and means near the front ends of said supports for limiting the forward movement of said slides.

9. The combination of a cabinet having a movable panel therein, supports for said panel secured to the opposing walls of said cabinet and each provided with a longitudinal groove, slides mounted on said supports above the panel and each provided with a depending tongue engaging the groove of the corresponding support, said tongues terminating short of the front ends of said slides, a pivot-rod carried by said panel and movable in said slides lengthwise thereof, and stops at the front ends of said grooves arranged to be engaged by said tongues when the panel is withdrawn from the cabinet.

10. The combination of a cabinet having panel-supports, a panel mounted on said supports, channeled slide-bars guided on said supports, a pivot attached to said panel and slidable in the channels of said bars, the latter being provided in their flanges with openings for the passage of said pivot, to permit removal of said panel from the slide bars when it is withdrawn from the cabinet.

11. The combination of a cabinet having a sliding panel therein, means for supporting said panel in the cabinet, channeled slide bars guided on said supporting means, and closed at their ends and a transverse pivot-rod carried by said panel and engaging the channels of said bars to slide lengthwise of the latter, said slide bars having their upper flanges provided adjacent their front ends with openings for the entrance and exit of said pivot-rod.

12. The combination with a cabinet having a removable panel therein, guides in said cabinet for supporting the panel at its opposite edges, and each guide being provided with a longitudinal groove, a channeled slide bar supported on each guide above the plane of said panel and provided with a depending tongue engaging the groove of the corresponding guide, said tongues terminating short of the front ends of said slide-bars, a transverse pivot rod carried by said panel and having its ends slidably and removably engaged with the channels of said bars, and stops at the front ends of said guides for limiting the forward movement of said slide-bars.

13. The combination of a cabinet having a vertical series of opposing panel-supports, the space between opposite supports being unobstructed, and panels slidably mounted on said supports, each support comprising only a bottom member to sustain the panel and a side member to hold it from lateral displacement, whereby each panel is free to rise from its supports under upward pressure of the subjacent panel, adjacent sets of supports being spaced apart vertically sufficiently to permit such rising action of the panels.

14. The combination of a cabinet having panel-supports, including vertical grooves, slides arranged above said supports and movable lengthwise in said grooves, a sliding panel mounted on said supports and provided at its rear end with an upward and rearward extension, said slides having longitudinal channels, and a transverse pivot-rod carried by said extension and engaging the channels of said slides.

BENJ. G. RAND.