Aug. 26, 1930. J. H. RAND, JR 1,774,237

INDEX OR RECORD CABINET AND THE LIKE

Filed July 6, 1922 4 Sheets-Sheet 1

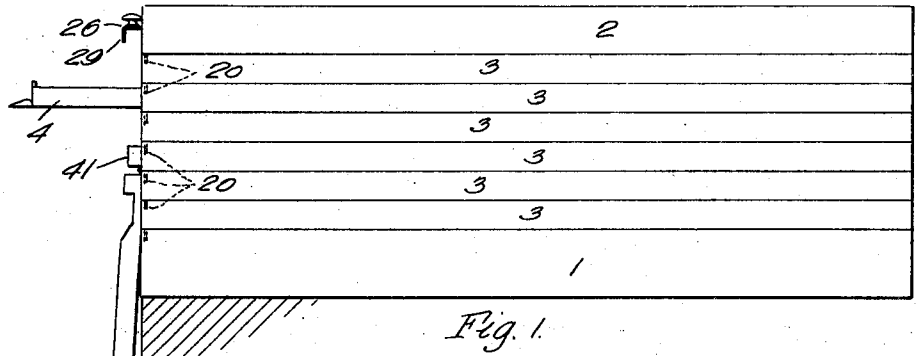


Fig. 1.

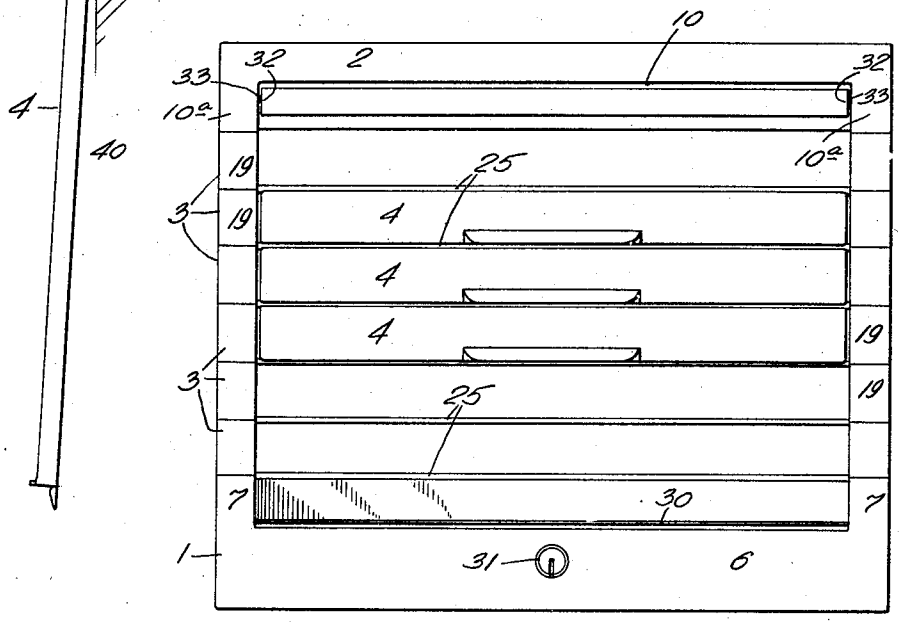


Fig. 2.

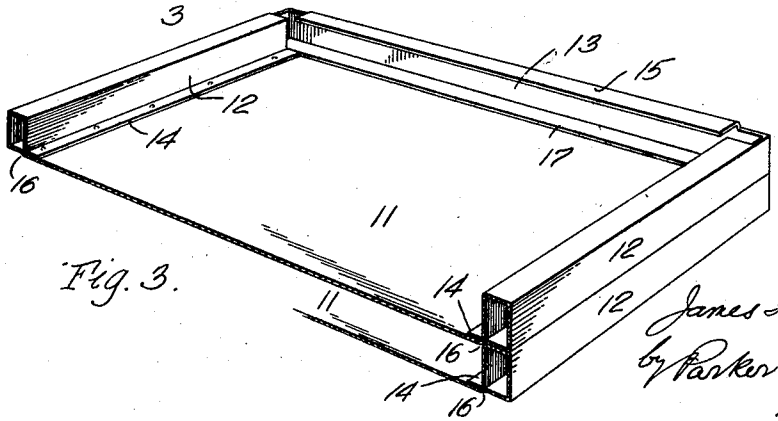


Fig. 3.

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Aug. 26, 1930. J. H. RAND, JR 1,774,237

INDEX OR RECORD CABINET AND THE LIKE

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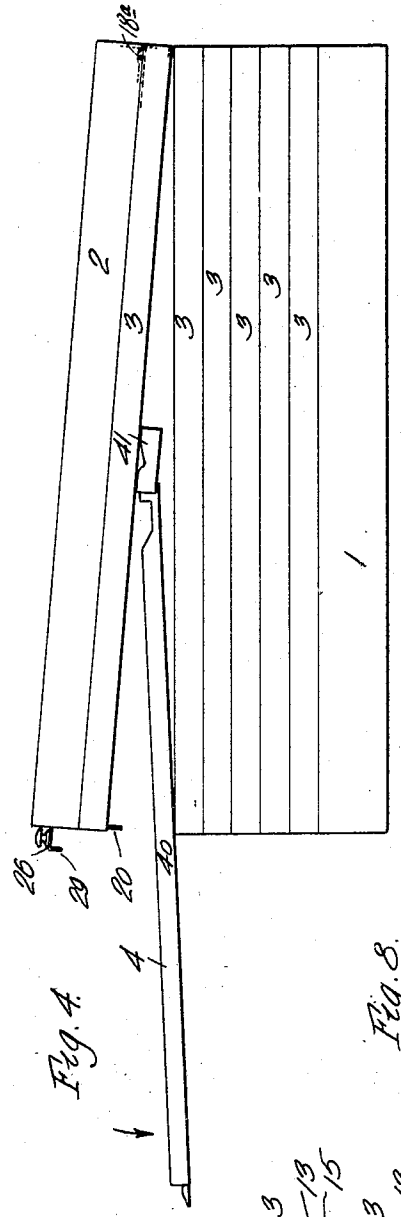


Fig. 4.

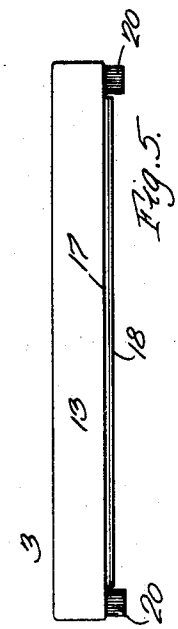


Fig. 5.

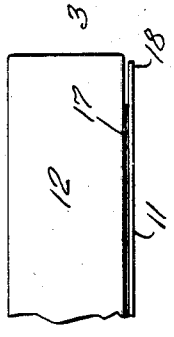


Fig. 8.

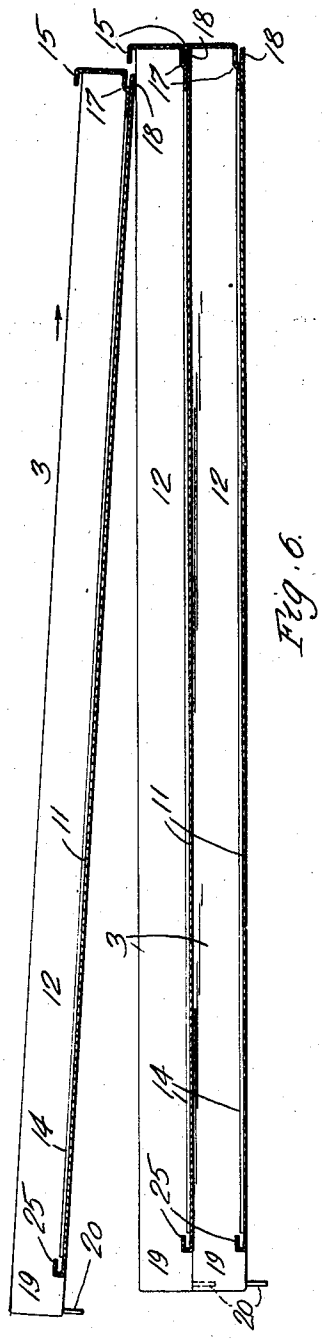


Fig. 6.

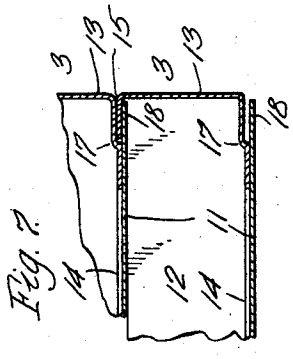


Fig. 7.

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INDEX OR RECORD CABINET AND THE LIKE

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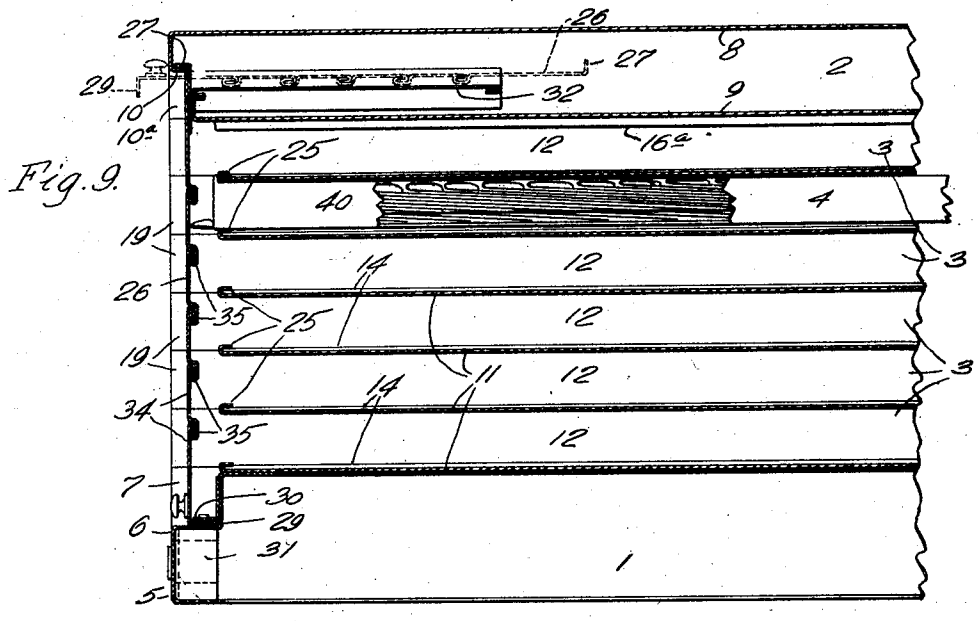


Fig. 9.

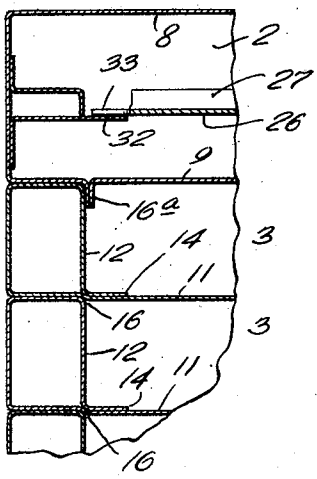


Fig. 10.

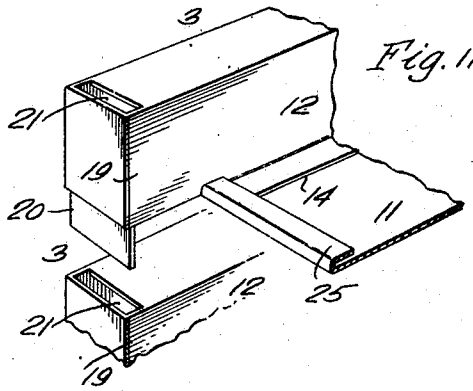


Fig. 11.

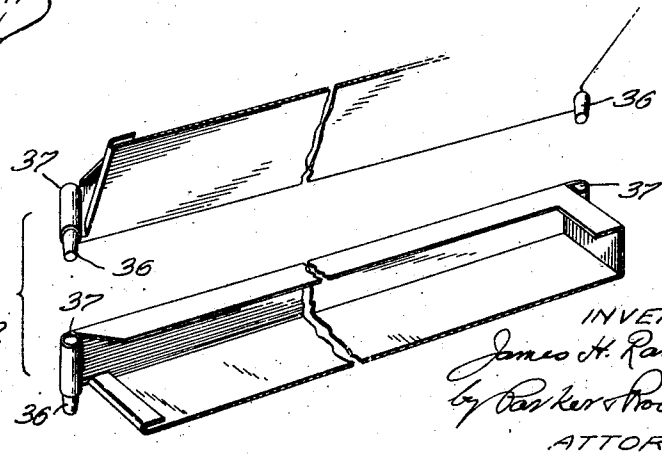


Fig. 12.

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INDEX OR RECORD CABINET AND THE LIKE

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Fig. 13.

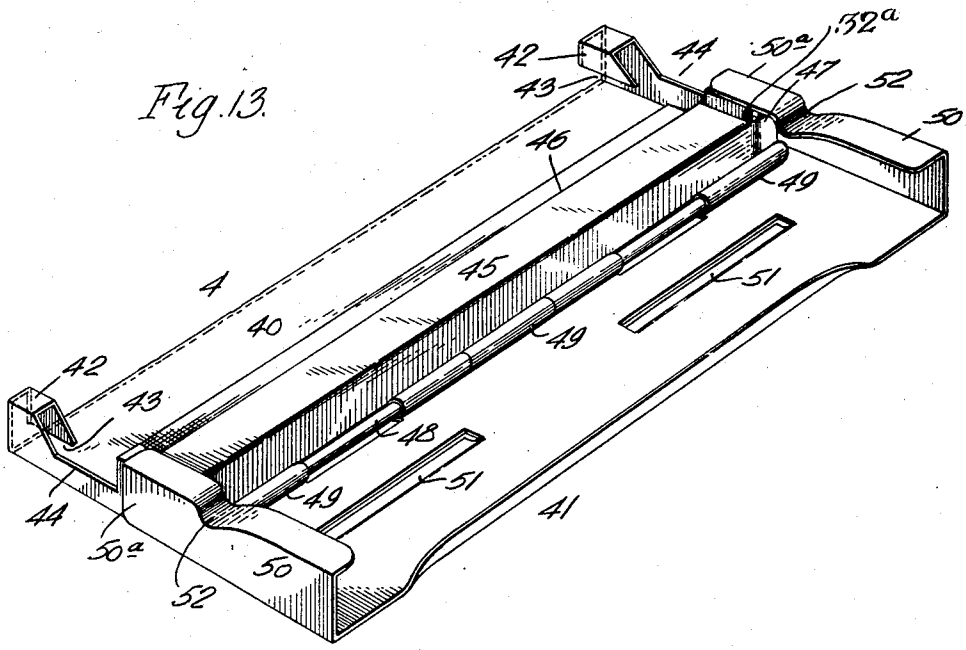


Fig. 14.

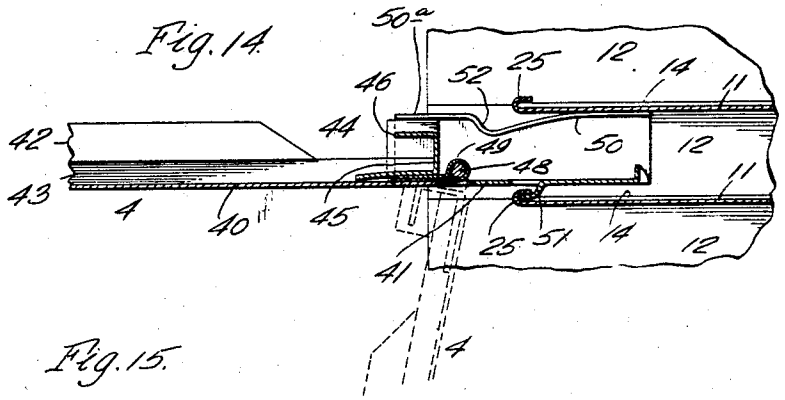
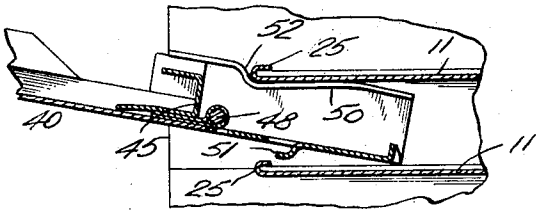


Fig. 15.



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Patented Aug. 26, 1930 1,774,237

UNITED STATES PATENT OFFICE

JAMES H. RAND, JR., OF TONAWANDA, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO REMINGTON RAND INC., OF NEW YORK, N. Y., A CORPORATION OF DELAWARE

INDEX OR RECORD CABINET AND THE LIKE

Application filed July 6, 1922. Serial No. 573,145.

This invention relates to cabinets such as used for card index or filing purposes, in which a plurality of card trays, drawers or analogous members are slidably arranged one above another in an enclosing case. More particularly the invention relates to a sectional cabinet in which index or record cards or members are arranged in convenient position for reference in shallow drawers, trays or holders which are slidably arranged in the cabinet so as to be housed and protected, but are adapted to be pulled outwardly, or if desired, completely removed from the case, for access or reference to the cards or devices contained in the drawers or slides.

One object of the invention is to produce a sectional cabinet or case which is of a novel and practical construction, enabling any desired number of sections each carrying a drawer or slide, to be assembled in one stack or unit. Other objects of the invention are to construct the cabinet sections so as to enable them to be readily assembled and detachably secured in place one upon the other, and to permit the ready disconnection and removal of any desired section or sections; also to arrange and connect the cabinet sections so that they are adapted to separate or spread apart vertically at one end. In the use of card index cabinets of this sort the drawers are frequently pulled out part way and entries made on the cards in the drawers, or the cards inserted, removed or rearranged in the drawers. When the drawers are thus pulled out or project forwardly from a cabinet constructed in accordance with this invention, if abnormal pressure is exerted on the projecting front end or ends of the drawer or drawers, the overlying sections of the cabinet can lift or separate from the section or sections beneath, and thus prevent the drawers or the contacting parts of the cabinet from being bent or injured by the pressure. When the pressure is released, the upper section or sections of the cabinet which have been thus lifted or separated from the lower sections, will return to their normal, horizontal positions in connection with the underlying sections.

Still further objects of the invention are to provide the cabinet case with a front door or cover hinged or movably connected with the upper section of the cabinet and adapted to be engaged with or locked to the base or lower section of the cabinet so that when the door is closed, it acts as a securing means to prevent the separation of the front ends of the cabinet sections; also to provide a drawer of novel construction having a hinged rear part adapted to pivotally support the drawer so that it can swing vertically in front of the cabinet when pulled out, and whereby the drawer can be readily disconnected and completely removed from the cabinet; and also to improve sectional cabinets or cases in the other respects hereinafter described and set forth in the claims.

In the accompanying drawings:

Fig. 1 is a side elevation of a sectional cabinet embodying the invention, showing one of the drawers or slides projecting partially out of the case, and another drawer in its hanging position in front of the cabinet.

Fig. 2 is a front elevation thereof on an enlarged scale.

Fig. 3 is a perspective view of the rear portion of one of the cabinet sections.

Fig. 4 is a side elevation of the cabinet illustrating how the cabinet sections are adapted to separate or spread relatively to one another in case of undue pressure on the front end of a projecting drawer.

Fig. 5 is an enlarged rear end view of one of the cabinet sections.

Fig. 6 is an enlarged, longitudinal, sectional elevation of three of the cabinet sections, showing the upper one disconnected from the others.

Fig. 7 is an enlarged sectional view showing the interlocking connections between the rear ends of the cabinet sections.

Fig. 8 is an enlarged side elevation of the rear end of one of the sections.

Fig. 9 is a longitudinal sectional elevation of the front end portion of the cabinet.

Fig. 10 is a fragmentary transverse sectional elevation of a portion of the cabinet.

Fig. 11 is a perspective view of one of the front corners of two adjacent sections, showing the interlocking tongue.

Fig. 12 is a perspective view of two adjacent sections showing a modified form of interlocking joint.

Fig. 13 is a perspective view of the rear portion of one of the drawers and its tail piece.

Fig. 14 is a fragmentary longitudinal section thereof.

Fig. 15 is a similar view of the parts in a different position.

The case of the cabinet comprises a bottom or base section 1, a top section 2, and intermediate sections 3, of which there may be any desired number, arranged one above the other between the base and top sections, said several sections being separably connected or interlocked with each other. The intermediate sections 3 are all alike and interchangeable, and provide a plurality of superimposed compartments for the reception of the drawers, or other sliding members 4 which are housed in the cabinet.

The base section 1 is of suitable construction and dimensions to provide a desirable base for the cabinet and support the lowermost drawer-containing section at the desired elevation. This base section is ordinarily made hollow and contains a lock for the front closure of the cabinet. It also provides a space in which locking mechanism for locking the several drawers can be arranged when such a mechanism is desired. The top section 2 is of suitable construction to form a suitable cover for the top drawer and a finishing top or upper end for the cabinet.

In the construction shown, the base section is in the form of a rectangular sheet metal frame, the opposite sides and the rear end of which are of channel shape cross section. The front end 5 of the frame preferably has inwardly projecting top and bottom flanges, and is also bent between these flanges to form a horizontal, hollow finishing flange 6 for the bottom of the front end of the cabinet. The front end of the base frame is also provided with inwardly and rearwardly bent side portions 7 for cooperation with similar parts on the intermediate sections to form hollow, vertical finishing flanges at opposite sides of the front end of the cabinet. The top section 2 is made of sheet metal and is hollow, having top and bottom walls 8 and 9 connected by upright walls at the opposite sides and rear end of the top section. The front end of the top section is provided between the top and bottom walls 8 and 9 with an inbent portion 10 forming a hollow, horizontal, finishing flange for the top of the front end of the cabinet, and with inbent side parts 10^a forming hollow vertical finishing flanges at opposite sides of the top section.

The intermediate or drawer-containing sections 3 are all alike, the lowermost one rests upon and is detachably interlocked with the base section 1, and the remaining intermediate drawer sections similarly rest upon and interlock with each other, while the top section 2 similarly rests upon and interlocks with the topmost of the intermediate drawer sections. Each intermediate section comprises a bottom plate 11, side walls 12, and a rear wall 13. In the construction shown, integral side portions of the bottom plate are bent to form the side walls, which preferably are made hollow by bending the side portions of the bottom plate upwardly, inwardly and downwardly, and welding or otherwise suitably attaching the extreme edges 14 of the plate to the bottom of the section. The rear wall 13 is shown as provided with an inwardly extending stiffening and locking flange 15 at its upper edge. As shown in Fig. 3, the bottom of each intermediate section is offset downwardly slightly, or formed adjacent its side walls with shoulders 16 extending lengthwise on the underside of the bottom, the shoulders 16 of one section 3 being adapted to fit against the inner edges of the side walls of the underlying section so as to retain the sections in parallel relation with their side walls in the same planes flush with each other. Similarly, the top section is provided with shoulders 16^a on its bottom for a like purpose. At the rear end each intermediate section is preferably offset at 17, see Fig. 7, so as to rest upon the inturned locking flange 15 of the underlying section, and each section is provided below this offset or shoulder 17 with a locking tongue 18 adapted to engage under the locking flange 15 of the underlying intermediate or bottom section. A similar locking tongue 18^a is provided at the rear end of the top section 2 to interlock with the uppermost intermediate section. The front ends of the side walls of the intermediate sections are preferably bent inwardly and rearwardly, forming U-shaped portions 19 which aline with the corresponding portions of the top and base sections to form the hollow side finishing flanges at the front of the cabinet.

In assembling the sections together, one section is placed upon another with its shoulders 16 or 16^a against the upper edges of the side walls of the underlying section and shoved rearwardly until its tongue 18 or 18^a engages under the locking flange 15 on the underlying section. This prevents the vertical separation of the sections at their rear ends. At its front end, each intermediate section is provided at its opposite sides with depending, vertical, securing tongues or lugs 20, adapted to enter openings 21 in the tops of the hollow side walls of the underlying section. The base section 1 of the cabinet is provided at its front end with similar openings to receive the tongues 20 of the lowermost intermediate section, and the top section 2 of the cabinet is provided at its front end with depending lugs 20 to enter the open-

ings 21 of the uppermost intermediate section. Thus, the intermediate sections are interchangeable and adapted to interlock one with the other, with the lowermost intermediate section interlocking with the base section and the uppermost intermediate section interlocking with the top or cover section 2 of the cabinet. The rear ends of the sections of the cabinet are prevented from vertical separation except by first raising the front ends of the sections to disengage the depending lugs 20 from their openings 21, and then pulling the sections forwardly to disengage the tongues 18 or 18ª from the locking flanges 15 at the rear ends of the sections. The front end of each section, however, is adapted to be lifted or separated vertically from the underlying section.

It will be noted that the bottom of each drawer-containing section forms the top of the compartment for the drawer beneath it, and the drawer-containing sections have no top walls, but each section has only a bottom, side and end walls, or in other words is of shallow, U-shape in cross section. By reason of this construction, the several sections of the cabinet are held securely in intended position one upon the other and prevented from accidental displacement. Nevertheless, the front end of any section can be lifted or separated vertically from its underlying section. Therefore, if the front end of a drawer which is projecting from the cabinet should be pressed downwardly with sufficient force, the front ends of the sections of the cabinet above this drawer would be pried or lifted upwardly by the inner end of the drawer. This makes the cabinet expansible and prevents the pressure on the drawer from bending or injuring the drawer or the adjacent parts of the cabinet sections. Likewise, if the front of a drawer should be forcibly lifted, the sections of the cabinet will separate in a similar manner and prevent injury to the drawer or cabinet.

Each of the intermediate cabinet sections 3 preferably has the front edge of its bottom bent upwardly and rearwardly, forming a hooked flange or stop 25 which is for the purpose of engaging a stop at the rear end of the drawer for arresting the outward movement of the drawer, and normally preventing the drawer from being entirely withdrawn from the case. The flange also forms a stiff, smooth finished front edge for the section bottom.

26 represents a cover or closure for the front end of the cabinet. As shown, this cover passes through a horizontal slot in the front end of the top section 2 of the cabinet and is adapted to be pulled outwardly through this slot, swung downwardly, and secured to close the front end of the cabinet and prevent the opening of the drawers. Preferably this cover is provided at its upper or rear end with a bent flange 27 which, when the cover is swung downwardly engages over the inbent horizontal flange 10 on the front end of the top section 2 to serve as a hinge, and the cover is provided at its front or lower end with an inbent flange 29 adapted to extend inwardly beneath a keeper or holding strip 30 on the front end of the base section 1 of the cabinet. When, therefore, the cover is pulled out of the top section and swung down to its vertical closed position, its upper flange 27 engages the flange 10 on the top section 2, and its bottom flange engages the holding strip 30 on the base section of the cabinet, thus tying these sections together and preventing the separation or disengagement of the front ends of the sections, so that when the cover is in closed position, it is impossible to separate or disengage the sections of the cabinet. The cover 26 can be locked in closed position by any suitable lock, such as an ordinary key lock indicated at 31 in the front end of the base section 1 of the cabinet, having a bolt adapted to pass through holes in the flange 29 of the cover and the keeper 30. 32 represents horizontal guides or ledges in the top section 2 at its opposite sides on which lateral lugs 33 at the rear end of the cover slide to guide the cover when moved in or out, and to support it when shoved back into the top section.

In order to enable the cover 26 to be increased or reduced in dimensions to fit the cabinet when a greater or lesser number of sections is employed, the cover is shown as being composed of a plurality of sections 34 detachably connected together by rigidly interfitting slip joints 35. These sections can be disconnected by slipping or driving one endwise out of engagement with the other and in this way one or more sections can be removed to reduce the dimensions of the cover, or one or more additional sections can be inserted to increase the dimensions of the cover. If it is not desired to make the cover of detachable sections in this manner, covers of different sizes, each adapted to fit a cabinet having a certain number of sections can be provided.

In the modified construction shown in Fig. 12, the cabinet is composed of separable base, top and intermediate sections, as above explained, and the sections can be of similar construction, but they are detachably connected, preferably by pins 36 which project downwardly from the four corners of one section and removably fit in sockets 37 at the corners of the underlying sections, each of the intermediate sections being provided at its bottom with the pins 36 and at its top with the sockets 37 to receive the pins of the next section above.

Each of the sliding drawers, trays or slides 4 comprises a container portion or body 40 for the cards and a pivoted, rear portion or

tail piece 41, and is preferably constructed as disclosed in my copending application, Serial No. 402,089, filed Aug. 9, 1920, that is as follows:—

The body portion 40 of each slide is formed with hollow, raised edges or side walls 42, the lower edges of the walls being slightly spaced apart from the bottom of the body whereby a slot 43 is provided for the reception of the retaining tongues of the cards or card holders. The side walls are cut away or recessed at each end as at 44 whereby the cards may be readily removed. It is considered desirable to construct the slides of thin metal, and in such construction to form the side walls by bending the edges of the sheet upwardly, inwardly and downwardly, thereby forming integral channeled side walls which impart greater rigidity and strength to the slide. The rear wall of the slide body is preferably formed of an angle piece 45 suitably secured to the inner face of the body and having its upper edge bent inwardly so as to provide an overhanging flange as at 46. The flange 46 is slotted as at 32^a, Fig. 13, thereby providing tongues 47 which fit within the channeled sides of the body and serve to brace the walls.

The pivoted inner end portion or tail piece 41 of the slide is preferably pivotally secured to the body as by a pin 48 passing through suitable loops 49 formed on or suitably attached to the rear of the slide body, and through loops on the tail piece formed by bending over the front edge of the tail piece. The pivoted tail piece is provided with upwardly and inwardly extending side flanges 50 which extend forwardly beyond the front end of the bottom of the tail piece, as indicated at 50^a, whereby they are adapted, when in horizontal position, to overlap and partially enclose the rear ends of the side walls of the slide body, both at the top and outer sides thereof, thus ensuring that no part of the slide member presents any sharp edges or ends when being inserted in the cabinet, and also serving to provide a rule joint whereby angular movement of the slide in an upward direction relative to the pivoted end is limited, thereby permitting quick closing of the slides, and effectively tending to prevent jamming or catching when the slides are hurriedly thrown to closed position. The overlapping side portions 50^a also hold the body and tail piece in alinement and prevent relative lateral play between them. The tail piece is further provided on its under side with one or more hook members or stops 51 which are adapted to engage the stop flange 25 at the front end of the section 3 containing the slide when the slide has been withdrawn to a certain point, whereby the tail piece of the slide will be retained in the cabinet, as illustrated in Fig. 14. The side flanges 50 serve as a guide for the sliding movement of the hinged tail pieces in the cabinet and to cause the hooks 51 to engage the stop flanges. The tail piece is also provided at its rear end with an upbent flange which provides a stiff, smooth rear end for the tail piece. In order to permit of intentional removal of the slide members, the side flanges 50 are provided with notches or depressions 52 at their upper faces which permit of the slide and its pivoted tail piece being given an upward movement when the notches register with the front edge of the section bottom next above, resulting in releasing the hook members from engagement with the flange of the section next below, as indicated in Fig. 15, thus permitting the removal of the slide.

In the use of the improved cabinet, the cards are inserted in the slide with their tongues projecting into the side channels of the slides. Then with the slide body and hinged tail piece in horizontal alinement, as shown in Fig. 14 the slide is inserted in the cabinet. To examine the cards in any of the slides, the slide is pulled out until the hooks on the bottom of the hinged tail piece engage with the stop flange of the section 3 containing the slide, whereupon the slide may be released and will hang in a vertical position in front of the cabinet permitting ready access to any and all of the cards carried therein. In this position, as illustrated in Figs. 1 and 14, the pivoted tail piece of the slide projects out of the cabinet and the slide can hang vertically from the pivoted end, thus permitting of a better view of the cards in the upper slides of a relatively high cabinet, and not tending to bend or injure the handles of lower slides. To return the slide to closed position in the cabinet, it may be grasped by the handle and moved upwardly, then inwardly, the projecting flanges of the hinged end acting in this movement to limit the upward movement of the slide body so that the slides may be moved upwardly and inwardly in substantially one motion with great speed.

In order to detach and remove any one of the slides from the cabinet, it is drawn outwardly until the hooks of its hinged tail piece engage the stop at the front end of the section 3, whereupon, if the slide is moved inwardly slightly and lifted up, the depressed portions of the side flanges of the tail piece will permit the disengagement of the hooks and the removal of the slide and its attached tail piece from the cabinet. The slides can be pulled out quickly without particular care, and the guide flanges of the tail pieces cooperating with the bottom of the section 3 above will always cause the hooks to engage so as to limit the outward movement of the slides and retain them in connection with the cabinet, nevertheless any desired slide can be readily disconnected and removed from the cabinet, as explained, by a simple

lifting movement of the front end of the slide.

I claim as my invention:—

1. A sectional cabinet comprising a plurality of independent and separable sections arranged one upon another and forming compartments opening at one end of the cabinet, a sliding member arranged in each compartment and movable into and out of said cabinet, said sections being formed of sheet metal of substantially U-shaped cross section and having integral, hollow side walls which together form stiff, rigid side walls for the cabinet, each of said sections having a bottom wall formed with a depressed intermediate portion adapted to fit between the side wall of the section next below to prevent lateral displacement of said sections, and means detachably connecting said sections one to another and normally preventing vertical separation of said sections.

2. A sectional cabinet comprsing a plurality of sections arranged one upon another and forming compartments opening at one end of the cabinet, a sliding member arranged in each compartment and movable into and out of said cabinet, said sections being formed of sheet metal of substantially U-shaped cross section and having integral hollow side walls which together form stiff, rigid side walls for the cabinet, each of said sections having a bottom wall formed with a depressed intermediate portion adapted to fit between the side walls of the section next below to prevent lateral displacement of said sections, interlocking connections at the rear ends of said sections which prevent vertical separation of said sections, and vertically interfitting lugs and slots at the front ends of said sections which normally hold said sections together at said front ends, and which permit said sections to separate vertically at the front of said cabinet when said slides are subjected to upward or downward pressure after being partially withdrawn from said cabinet.

3. A sectional cabinet comprising a plurality of detachably connected sections arranged one upon another and forming compartments for containing sliding members, said sections being of substantially U-shape cross section without top walls, interlocking connections for said sections at one end which prevent vertical separation of the sections at said end, and interengaging parts at the opposite ends of said sections which permit vertical separation of the latter ends of the sections, when said slides are subjected to upward or downward pressures after being partially withdrawn from said cabinet.

4. A sectional cabinet comprising a plurality of separate sections arranged one upon another and forming compartments open at one end for the reception of sliding members movable into and out of said cabinet, interfitting parts at the rear ends of said sections for preventing vertical separation at said ends of said sections, and a closure member adapted to extend vertically in one position in front of said sections and having parts adapted to tie said sections together to prevent vertical separation thereof at said front ends when said sliding members are in said cabinet, and said closure member being movable to a second position in which said sliding members can be moved out of said cabinet, and said sections being then separable at their front ends, after release by said closure member, when said slides are subjected to upward or downward pressure after being partially withdrawn from said cabinet.

5. A sectional cabinet comprising a base section, a top section and a plurality of intermediate sections all detachably connected one to another in vertical arrangement, said intermediate sections forming compartments open at one end for containing sliding members, the capacity of said cabinet being varied by the addition or removal of intermediate sections, and a closure member hingedly supported along one edge and comprising a plurality of rigidly interfitting parts corresponding in number to the sections of said cabinet and adapted to extend vertically in front of said intermediate sections and connect with said top and bottom sections to close said cabinet and prevent access to said sliding members, said closure member being adapted to be extended or reduced in length by adding to or reducing the number of its interfitting parts so as to fit the cabinet when the number of intermedate sections in said cabinet is varied, and said closure member being movable out of its position in front of said intermediate sections to give access to said sliding members.

6. A sectional cabinet comprising a plurality of separate sections arranged one upon another and forming compartments open at one end for the reception of sliding members movable into and out of said cabinet, interfitting parts at the rear ends of said sections for preventing vertical separation at said end of said sections, while permitting said sections to be separated by relative forward movements, a closure member adapted to extend vertically in front of said sections and having releasable connections with the top and bottom sections of the cabinet to close the open ends of said compartments and prevent vertical separation of said sections at their front ends, and which also prevents relative forward separating movements of said sections, and said closure member being movable to a position such that said sliding members may be moved out of said cabinet.

7. A sectional cabinet comprisng a plurality of separate sections arranged one upon another and forming compartments open at one end for the reception of sliding mem-

bers movable into and out of said cabinet, interfitting parts at the rear ends of said sections for preventing vertical separation at said end of said sections, a closure member formed of a plurality of transverse, sheet metal members having endwise, interfitting rigid connections, said member being movable to and from a position in front of said open ends of said compartments, and means for connecting the opposite ends of said rigid closure member with the top and bottom sections of said cabinet to prevent vertical separation of the front ends of said sections.

8. A sectional cabinet, comprising a base section, a top section, and a plurality of intermediate sections, said intermediate sections being mounted one above the other between said base and top sections, means on each section cooperating with the next adjacent section to hold said sections in alignment, means detachably inter-engaging at the rear ends of said sections to normally prevent vertical separation of the sections, a closure member carried by the top section adapted in one position to overlie the fronts of said intermediate sections and means for locking said closure member to said base section, said closure member in locked position preventing detachment of any of said sections from another and preventing access to said intermediate sections.

9. A sectional cabinet, comprising a base section, a top section, and a plurality of intermediate sections, said intermediate sections being mounted one above the other between said base and top sections, means on each section cooperating with the next adjacent section to hold said sections in alignment, interfitting parts at the rear ends of said sections to prevent vertical separation of said ends, and a closure member detachably connected in one position to said top and bottom sections in front of said intermediate sections, and locking all of said sections against detachment, said closure member also preventing access to the fronts of said intermediate sections.

10. A sectional cabinet, having an intermediate section comprising a sheet metal member formed with upwardly extending side walls at the side edges, inwardly extending flanges at the upper edges of said side walls, downwardly extending inner side walls at the inner edges of said flanges secured to said member, the central portion of said member between said inner side walls being offset below the marginal portions thereof at the sides, a rear wall extending upwardly from said member, a locking flange on the upper edge of said rear wall, and a hook portion formed at the front edge of said member.

11. A sectional cabinet, having an intermediate section, comprising a sheet metal member formed with upwardly extending side walls at the side edges, inwardly extending flanges at the upper edges of said side walls, and downwardly extending portions forming inner side walls at the inner edges of said flanges, the lower edges of said downwardly extending portions being secured to said member, and the central portion of said member between said inner side walls being offset below the marginal portions thereof at the sides.

JAMES H. RAND, JR.