109-83 CROSS REFERENCE SEARCH ROOM

May 26, 1959 H. L. HENKEL ET AL 2,887,965

SECURITY FILE

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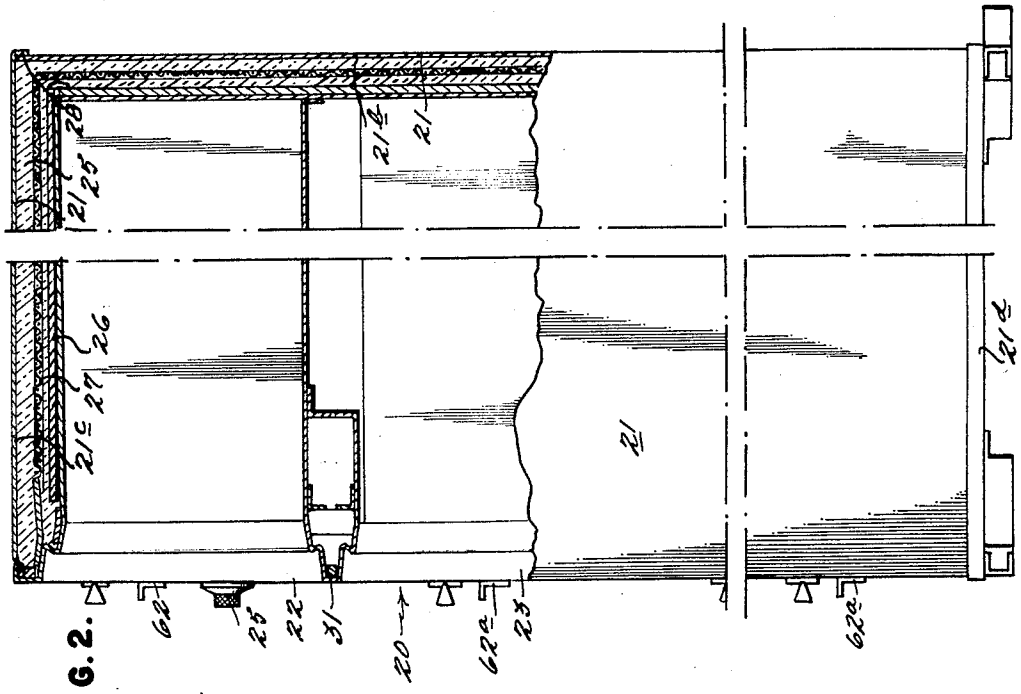


FIG. 2.

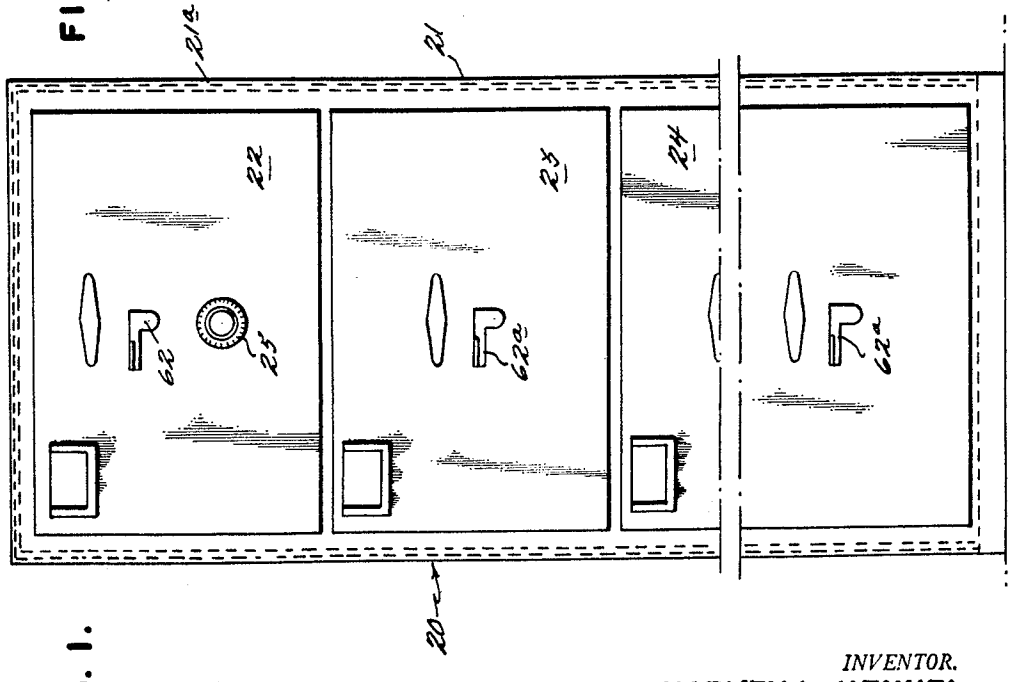


FIG. 1.

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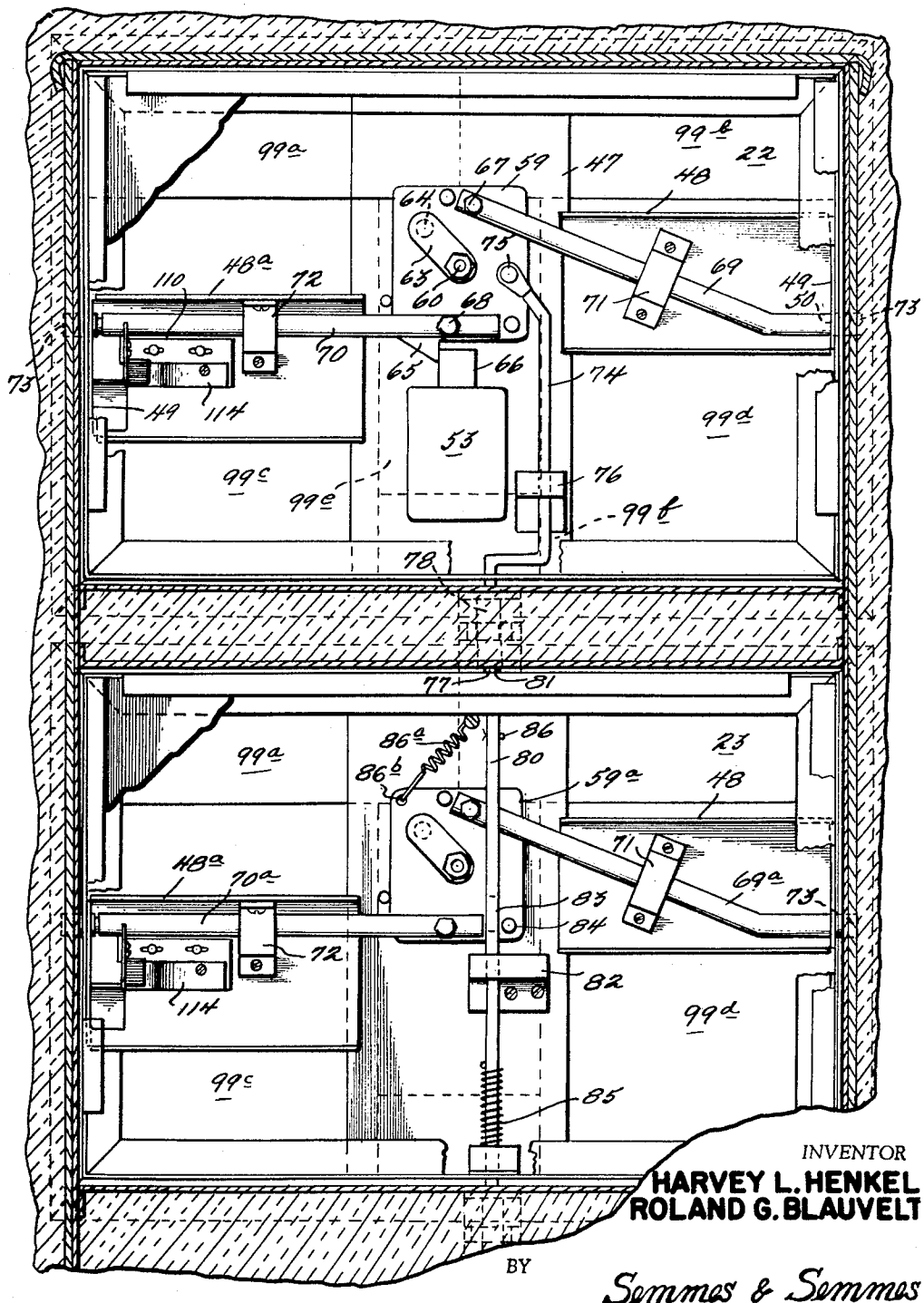
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SECURITY FILE

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FIG. 3.



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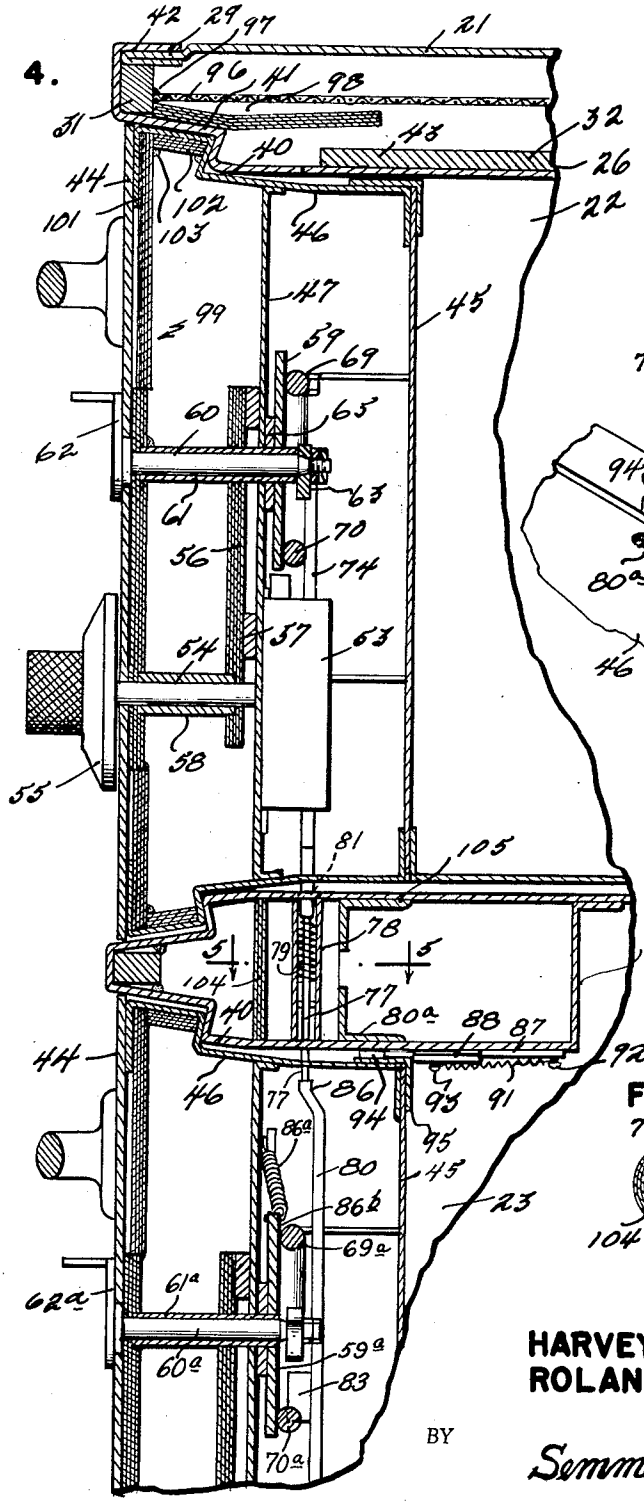
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FIG. 4.



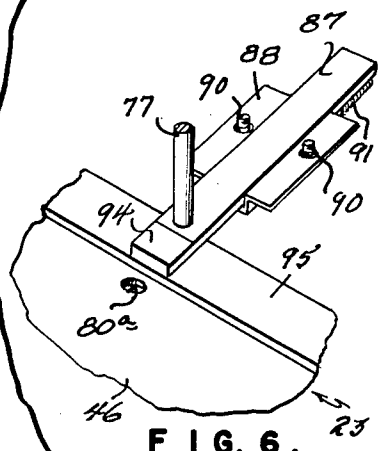
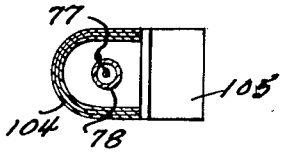


FIG. 6.

FIG. 5.



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FIG. 7.

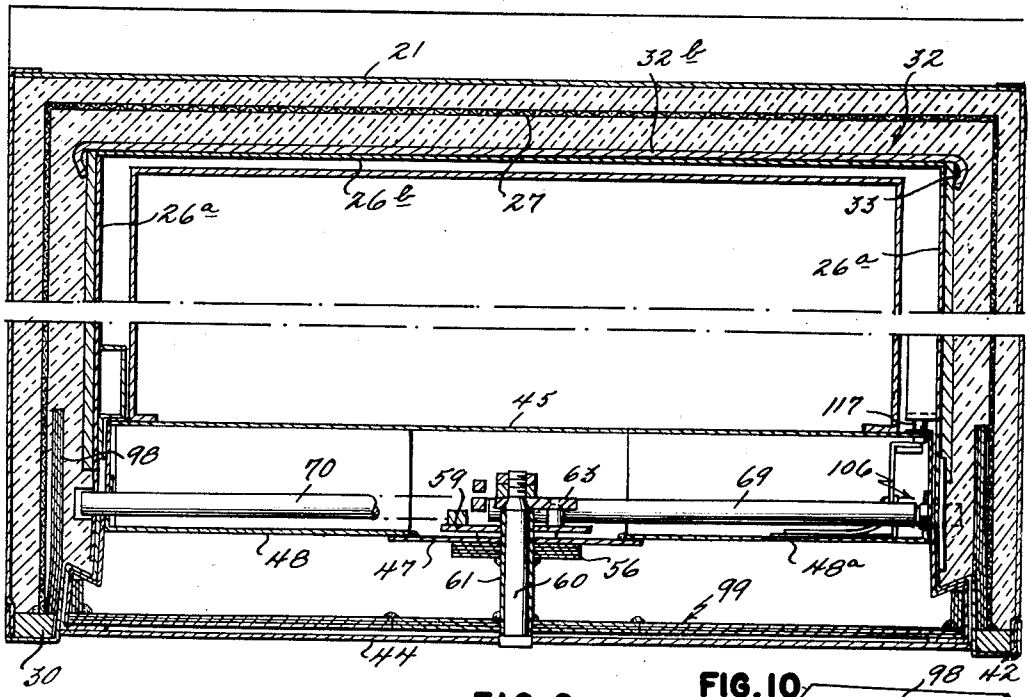


FIG. 8.

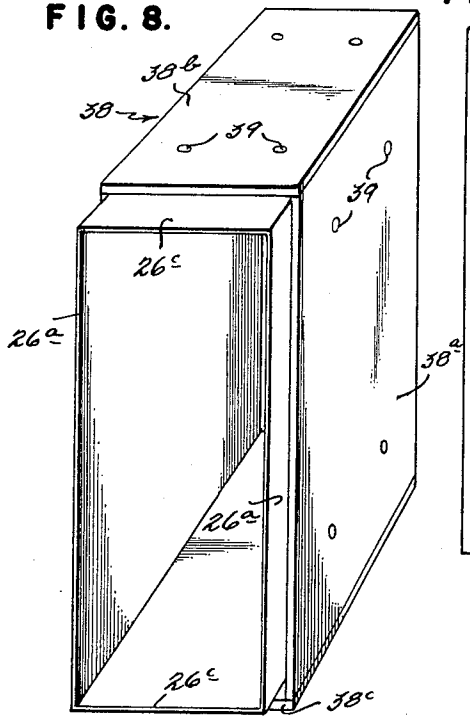


FIG. 9.

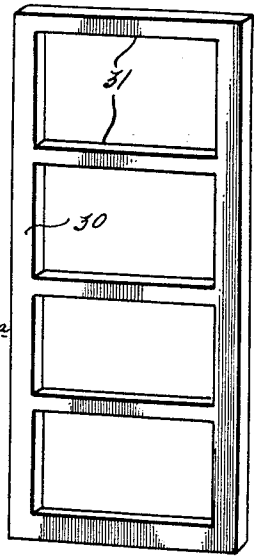
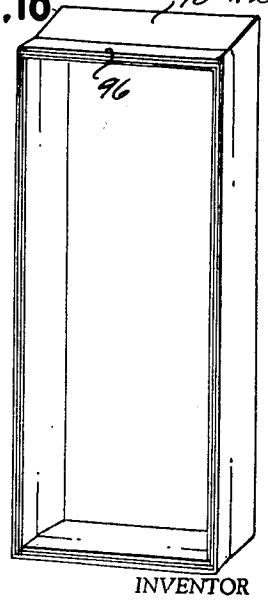


FIG. 10



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FIG. 11

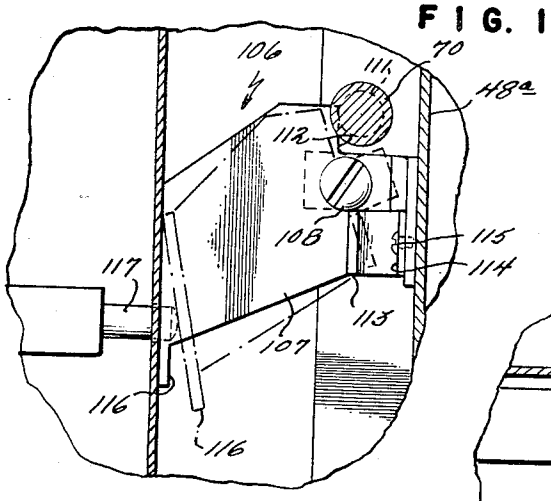
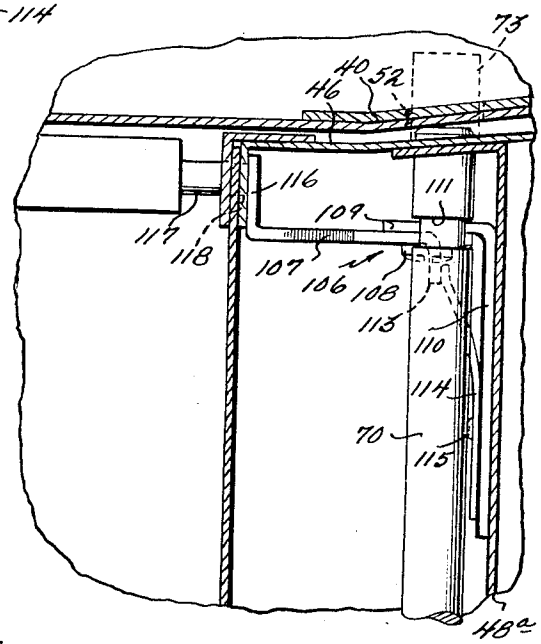


FIG. 12.



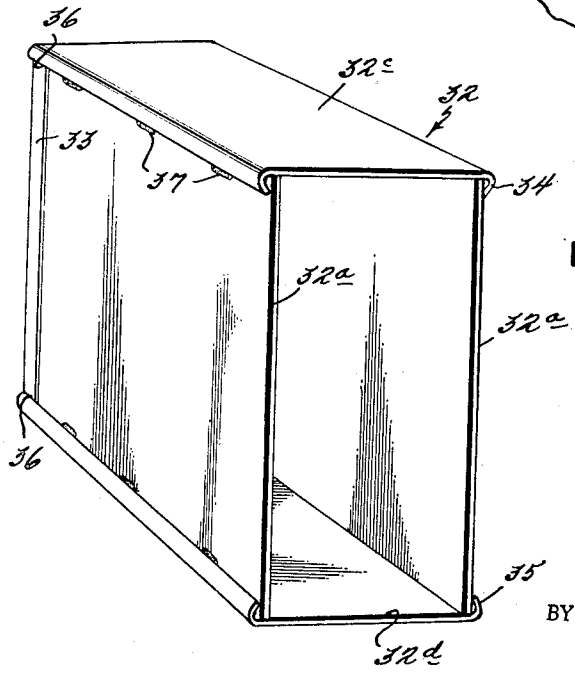


FIG. 13.

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United States Patent Office 2,887,965 Patented May 26, 1959

2,887,965

SECURITY FILE

Harvey L. Henkel and Roland G. Blauvelt, Hamilton, Ohio, assignors to Herring-Hall-Marvin Safe Company, Hamilton, Ohio, a corporation of Ohio

Application September 2, 1955, Serial No. 532,253

6 Claims. (Cl. 109—59)

This invention relates to burglar proof and fire proof filing cabinets and represents an improvement on the structure disclosed in the copending application of Harvey L. Henkel, Serial No. 435,306, filed June 8, 1954 and issued August 20, 1957 as Patent No. 2,803,203 and owned by the assignee of this application. As in said copending application, the present invention relates to cabinets of the type comprising a plurality of drawer sections generally arranged in superimposed relation and wherein the drawers are provided with individual locking mechanisms, collectively under the control of one master lock. More specifically, the invention consists in new and useful improvements in the reinforcement of certain critical areas of the cabinet casing and drawer fronts, with laminated steel plates so arranged with respect to the various components of the locking mechanisms as to afford maximum protection against surreptitious entry in the event an attack be made upon the locking mechanism of the file.

As in said copending application, the file cabinets of this invention are provided with gang lock mechanisms, located just inside the front faces of the drawers, each mechanism being equipped with an individual control knob or handle, whereby locking bolts are projected or retracted with respect to complementary locking recesses located in the front portion of the cabinet shell adjacent the drawer fronts, the mechanisms being under the common control of a combination lock, usually located in the front of the top drawer of the series.

The location of the gang locking mechanism inside of the drawer head itself as above described, distinguishes over other file cabinets with which we are familiar, in that in the latter, the gang locking mechanism is generally located in the side of the cabinet, operating off the side of each drawer. It may be noted that the location of the gang locking mechanism inside of the drawer head, facilitates the provision of the necessary protection to the gang locking mechanism as well as to all other operating parts of the file. Thus, the areas most likely to be attacked in an effort to gain unauthorized entry into the present cabinet, are those in the immediate vicinity of either the lock controls or the lock bolts, which as before stated are located in a vertical plane lying just within the front faces of the file drawers.

It is therefore the primary object of the present invention to provide a laminated steel reinforcing structure, so located with respect to these vital areas, as to shield them against tampering with tools, drills and other implements of that nature.

Another object of the invention is to provide a composite reinforcing plate for installation in the front face of each drawer and formed in a plurality of sections, continuously welded or spot welded at pre-determined points to form an integral plate which resists punching or driving into the drawer front with metal punches, drills, etc.

Still another object of the invention is to provide laminated reinforcing and protecting plates for the vital areas of the cabinet and drawers, wherein alternate layers or

plies are formed of metal capable of being tempered to a tool resisting hardness to afford maximum protection against the action of tools.

A further object of the invention is to provide an outer shell for the inner casing of the cabinet, formed of special aluminum sheeting metal and designed with self-locking features which not only facilitates the fabrication of the shell, but provides an extremely rigid construction for protecting the casing which houses the sliding drawers.

Still another object of the invention is to provide a reinforcing band of hardened laminated metal which is inset with respect to the outer shell of the casing and laterally surrounds the front portion of the cabinet adjacent the drawer receiving openings therein and extends rearwardly from the extreme front edge of the cabinet for a distance to provide an encircling shield which intersects the planes of both of the spaced walls of the drawer front when the drawer is in closed position.

A still further object of the invention is to provide an encircling shield such as above referred to, at least the outer face of which is laterally concaved toward its longitudinal center to provide deflecting surfaces upon contact with a punch, tool or drill.

Another object of the invention is to provide an automatic bolt catch assembly which prevents the throwing of the lock bolt so long as the drawer is in open position, said catch being automatically released upon the closing of the drawer.

Still another object of the invention is to provide an additional protecting device operable upon the opening of the drawer to render it impossible to partially close (but not lock a lower drawer) with the intention of returning to get the contents. In other words, by the use of an automatic protecting plate, it becomes impossible to lock the top drawer unless every drawer below has been closed.

A further object of the invention is to provide an improved lock actuating mechanism including a bolt operating cam member releasably connected to the operating shaft so that in the event the latter is forced inwardly by a punch or the like, it becomes disengaged from the cam and leaves no accessible means for operating the cam.

With the above and other objects in view which will appear as the description proceeds, the invention consists in the novel features herein set forth, illustrated in the accompanying drawings and more particularly pointed out in the appended claims.

Referring to the drawings in which numerals of like character designate similar parts throughout the several views:

Fig. 1 is a front elevational view of a sectional cabinet embodying the invention;

Fig. 2 is a side view, partially in vertical section, showing the locations of the reinforcing strips and plates;

Fig. 3 is an enlarged transverse sectional view, looking forward from inside the drawers, showing two of the drawer sections and their locking mechanisms and illustrating the relationship of the drawer front reinforcement;

Fig. 4 is an enlarged vertical sectional view, taken transversely through the drawer and cabinet front, illustrating the hardened laminated reinforcing plate and its relationship to the lock mechanism. In this figure the insulation is omitted for clarity;

Fig. 5 is a horizontal sectional view taken on line 5—5 of Fig. 4 and showing the laminated protecting shield for the gang lock mechanism;

Fig. 6 is an enlarged perspective detail of the sliding plate mechanism for preventing the locking of the cabinet until all drawers are closed;

Fig. 7 is a horizontal sectional view through the cabinet with portions broken away;

Fig. 8 is a reduced perspective detail showing one form of aluminum casing for the inner shell;

Fig. 9 is a perspective view of the front, ladder-like frame;

Fig. 10 is a perspective view of the laminated reinforcing band;

Fig. 11 is a sectional detail of the bolt catch assembly;

Fig. 12 is a fragmentary view, partially in plan and partially in horizontal section, taken at right angles to Fig. 11; and

Fig. 13 is a perspective view of the preferred form of aluminum casing for the inner shell, having interlocking walls.

In the drawings, **20** generally represents a sectional file cabinet which may be basically of conventional structure, including a cabinet outer shell **21** of suitable metal and a series of super-imposed drawers **22**, **23** and **24**. Obviously, any number of drawer sections may be employed as the occasion demands. The walls of the cabinet are provided with the usual insulation and fire proofing material **25**, filling the space between the outer shell **21** and an inner shell generally indicated at **26**, and completely surrounding the top, rear and bottom walls of the cabinet, and if desired, a reinforcing wire mesh **27** may be inserted within the insulating sheet or body **26**.

The outer skin of the cabinet is formed of continuous metal sheets providing side members **21***a*, a rear member **21***b*, and top and bottom members **21***c* and **21***d* respectively. The side, top and bottom members are preferably flanged as at **28** so as to overlie the rear member **21***b*, the flanges **28** being welded or otherwise suitably secured to form a rigid rectangular outer skin.

The front edges of the sheets forming the sides, top and bottom members are preferably folded upon themselves as at **29** (Fig. 4) for purposes of rigidity and the side members are secured to the vertical legs **30** of a metal ladder-like frame structure, having a series of vertically spaced, horizontal cross-members **31**, welded to and extending across the spaced uprights **30** to provide spacing supports for the drawer-receiving compartments to be described.

The inner shell **26** which forms the actual drawer-receiving chamber, consists of metal side sheets **26***a*, rear wall **26***b* and top and bottom walls **26***c*. The adjoining edges of these metal sheets are welded to complete the inner shell **26** and the shell is enclosed in a supplemental housing generally indicated at **32** in Figs. 7 and 13, which illustrate the preferred form of supplemental housing. A modified form of supplemental housing is shown in Fig. 8 and will be referred to hereafter.

The preferred form of supplemental housing as best shown in Fig. 13 comprises side walls **32***a* of aluminum sheeting metal which are contiguous with and overlie the side walls **26***a* of the innner shell and extend from top to bottom of the cabinet. A rear wall **32***b* (Fig. 7) of similar metal overlies the rear wall **26***b* of the inner skin and its lateral edges are bent at an angle as at **33**, to overhang and abut the outer faces of the respective side walls **32***a*. Thus, the rear wall **32***b* may be vertically slid into place over the rear ends of the side walls **32***a* with the angular edges or flanges **33** acting to secure said side walls in place against the respective side walls **26***a* of the inner shell.

A similar construction is employed for the top wall **32***c*, the lateral edges of which are bent angularly as at **34** to overhang the upper ends of the side walls **32***a*, and if desired, this same arrangement including flanges **35**, may be embodied in the bottom wall **32***d* of the supplemental housing. The angular flanges **33** of the rear wall **32***b* are slotted as at **36** to accommodate the edges of the angular flanges **34** and **35** of the top and bottom walls, thus permitting the sliding of the latter into place so that the adjacent angular flanges **33**, **34** and **35** will have an interlocking effect when in their final positions. It will be apparent that this overhanging and interlocking flange structure provides a rigid housing for reinforcing the inner shell **26** and may be assembled with a minimum of effort. After the supplemental housing is assembled, the overhanging and interlocking flanges **34** and **35** may be welded to the adjacent side walls **32***a* as shown at **37** in Fig. 13.

The modified form of supplemental housing shown in Fig. 8 and generally represented by the numeral **38**, simply consists of sidewalls **38***a* of aluminum sheeting metal which are contiguous with and overlie the sidewalls **26***a* of the inner shell and extend from top to bottom of the cabinet. A rear wall (not seen in the drawing) of similar metal overlies the rear wall **26***b* of the inner skin and its lateral edges overhang and abut the adjacent edges of the respective sidewalls **38***a*. Likewise, the top and bottom plates **38***b* and **38***c* overhang the ends of the side walls **38***a* and the entire supplemental housing is riveted in place over the inner shell **26** as at **39**. In Fig. 8 the inner shell **26** is shown projecting partially from the outer supplemental housing, simply for purposes of illustration.

The forward ends of the compartment forming walls provided by the spaced outer and inner shells **21** and **26**, around the end opening of each drawer compartment, constitute a jamb frame including straight top, bottom and side jamb frame members. Each of these jamb frame members includes angularly offset walls **40** jointly forming a rectangular groove or recess **41** to receive complementary walls bounding the respective drawer fronts, as will later appear.

Each of the jamb frames is formed of sheet metal, the outer edge of each sheet being bent to overlie the front ladder structure formed by the uprights **30** and cross members **31**, as shown at **42** in Figs. 4 and 7. These bent portions **42** overlap the adjacent edges **29** of the outer shell **21**, and are welded thereto and their inner edges are welded to the adjacent edges of the inner shell **26** and housing **32**, at at **43**.

As best seen in Fig. 4, the front of each drawer is formed with an outer skin **44** and a rearwardly spaced inner skin **45**, joined at top, bottom and sides by a continuous web **46**. This web **46** is of an irregular cross-sectional profile which coincides with the complementary profile of walls **40** of the jamb frame which bounds the respective drawer receiving compartments of the cabinet, adjacent the drawer receiving openings in the front thereof. This is more or less conventional structure in file cabinets of this type, to insure an interlocking of the drawer front and cabinet opening when the drawer is closed so as to effect a sealing engagement.

The lock mechanisms of the drawers are housed in the spaces between the outer skins **44** and inner skins **45**, and although these mechanisms may vary in specific structure, one practical form is illustrated in the drawings, as an example.

Referring to Figs. 3 and 4, it will be seen that the front wall of each drawer is provided with a vertically disposed lock supporting plate **47** located intermediate the front and rear skins of the drawer front. The plate **47** is supported by horizontally disposed metal channels **48** and **48***a*, welded to opposite edges of the plate **47** with their other ends bent angularly at **49** and welded to the webs **46** on opposite sides of the drawer front. Preferably the angular flanges **49** are provided with openings **50**, aligned with similar openings **51** and **52**, respectively, in the web **46** of the drawer front and the side walls **40** of the drawer receiving opening in the cabinet. As will later appear, these registering openings are adapted to receive the locking bolts of the drawer locking system. In the uppermost drawer **22** the strip **47** supports a combination lock mechanism **53**, of any conventional form, the strip **47** being drilled to receive a forwardly projecting operating shaft **54** which extends through a suitable opening in the front skin of the drawer and carries on its projecting end a combination dial **55**. As will later appear, a laminated pro-

tecting shield 56 is located immediately in front of the supporting strip 47 and spaced therefrom by cross strips 57 which, together with the shield 56 are welded in place to afford an auxiliary protection to the locking mechanism. A sleeve 58 substantially encloses the shaft 54 which penetrates the shield 56 and said sleeve is preferably welded in place between a laminated shield 99 and the protecting shield 56 as shown in Fig. 4.

Immediately above the combination lock 53 in the front of drawer 22, is an operating cam plate 59, rotatably mounted on a forwardly projecting shaft 60, supported by the plate 47 and the front skin 44 of the drawer. A similar protecting sleeve 61 surrounds the shaft 60. A thumb latch control 62 is fixed to the projecting outer end of the shaft 60 and the inner end of said shaft and the sleeve 61 project through and extend beyond the cam plate 59 as will be seen from Fig. 4, the end of the shaft 60 having secured thereto with a tapered fit, a radially extending crank arm 63 (Figs. 3 and 7). This tapered fit provides a clutch action on slippage, should undue force be applied to the thumb latch control. The opposite end of the crank arm 63 carries a cylindrical stud 64 which fits loosely in a complementary opening in the cam 59 so that when the shaft 60 is rotated, the cam 59, being freely mounted on the sleeve 61, is caused to rotate through the action of the keyed crank arm 63. The cam 59 is preferably spaced from the lock supporting plate 47 by a spacing washer 65.

The object attained by this particular arrangement for connecting the operating shaft 60 to the cam 59 is that in the event the thumb latch control 62 is knocked off the end of the shaft 60 by someone attempting to gain entry to the cabinet, and the shaft 60 is driven inwardly, the crank arm 63 carried by the shaft, becomes disengaged from the cam 59 through removal of the stud 64. This leaves the cam 59 with no means for rotating the same to retract the lock bolts, to be described.

The cam plate 59 is preferably rectangular in shape as shown in Fig. 3 and its lower edge is provided with a projecting shoulder 65. A latch member 66 under control of the combination lock 53 projects upwardly into retractible engagement with the shoulder 65, so that until the latch 66 is retracted, the cam cannot be rotated by the thumb latch control 62. As best seen in Fig. 3, the cam 59 is pivotally connected at opposed eccentric points 67 and 68, to laterally projecting lock bars 69 and 70 respectively. These lock bars 69 and 70 are slidably supported within the cross channel members 48 and 48*a* respectively, by means of brackets 71 and 72. The brackets may be bolted or otherwise secured to the webs of respective channels. The outer ends of the lock bars form lock bolts which are slidably supported in the registering openings 50, 51 and 52, in opposite side walls of the drawer front, so as to be projectible and retractible with respect to complementary recesses 73 in the adjacent jamb frames of the drawer receiving recesses of the cabinet. Thus, upon rotation of the cam 59, the lock bolts 69 and 70 are either engaged or disengaged with their respective locking recesses 73.

Similar locking mechanisms are installed in each of the drawers of the series and all are under the collective control of the master combination lock 53. To effect this collective control, the top drawer 22 is provided with a main actuating rod 74 which is pivotally connected at its upper end at 75, to one side of the cam 59 and is supported for vertical sliding movement by a bracket 76 in the lower portion of the drawer. The rod 74 is preferably bent at right angles so that its lower end is in abutting relation with the upper end of a spring pressed intermediate plunger 77, located in a supporting tube 78 extending between the horizontal walls which form the bottom of the drawer receiving recess in the cabinet. A spring 79 (Fig. 4) normally urges the plunger 77 upwardly to its limit, but upon clockwise rotation of the cam 59 (Fig. 3) the rod 74 is urged downwardly to depress the plunger 77 against the tension of its spring, so that the plunger acts as a connecting link between the main actuating rod 74 and a second control rod 80 in the drawer 23, next below. The rod 80 is slidably supported in a guide opening 81 and bracket 82 in drawer 23, and is provided with an offset projection or abutment 83, adapted to be brought into and out of abutting relation with the end of locking bolt 70*a* and backstop pin 84 projecting laterally from the face of a second cam plate 59*a* in the front of drawer 23. Thus, when the rod 80 and abutment 83 are in the position shown in Fig. 3, counterclockwise rotation of the lock cam 59*a* is prevented by engagement of the locking bolt end with the abutment 83, so that retraction of the lock bolts 69*a* and 70*a* is prevented. The rod 80 is normally urged upwardly by a coil spring 85, against which it is depressed upon the downward movement of the upper rod 74. The rod 80 is of a length such that when in its extreme upward position, its ends will clear the drawer boundaries so as not to interfere with the opening of the drawer, and stop means such as the cotter pin 86 limit the upward movement of the rod. A similar arrangement is installed in all of the succeeding drawers.

It will be apparent that when the rods 74 and 80 are in their lower most positions as shown, the lock bolts of all drawers are in locked engagement. The thumb latch control 62 of the top drawer cannot be operated until the combination lock 53 is released and the corresponding thumb latch controls 62*a* of the lower drawers cannot operate the cam 59*a* until the rods 80 are moved upwardly by the release of the main actuating rod 74 to clear the abutment 83 from the path of the locking bolt 70*a*.

A coil spring 86*a* extends from a fixed point on the drawer front to an opening 86*b* in one of the upper corners of the cam 59*a*, and normally exerts sufficient tension to urge the cam towards its extreme clockwise position as viewed from Fig. 3. Upon depressing the thumb latch control 62*a*, the cam 59*a* is rotated in counterclockwise direction against the tension of the spring 86*a* which, upon release of the latch control, immediately tends to return the cam to its normal position. Ordinarily, no spring is required to return the upper cam 59 to its normal position, for the reason that the springs 85 on the rods 80 of the lower drawers, exert sufficient upward pressure on the main control rod 74 to return the cam 59 to its normal position.

With a high security file cabinet such as that forming the basis of this invention, it is important to guard against the possibility of locking the top drawer while any one of the lower drawers is still partially open. To this end we provide a protecting plate mechanism illustrated in detail in Fig. 6 which automatically comes into play upon the initial opening movement of any one of the lower drawers. This protecting device consists of a plate 87 slidably mounted in a retaining bracket 88 which is fixed to the underside of a box-like reinforcing structure 89 formed at the forward end of the drawer receiving opening and preferably formed integrally with the jamb frame member 40. The bracket 88 may be secured by screws or the like 90 and it is so positioned that the path of movement of the plate 87, carries the forward end of the latter directly under the lower end of the plunger 77 which acts as the connecting link between the control rods 74 and 80, as previously explained.

Normally, the coil spring 79 exerts an upward pressure on the plunger 77 so that when the main control 74 is elevated to its extreme upward position in unlocking the top drawer 22, the lower end of the plunger 77 is flush with the lower surface of the jamb frame 40. A coil spring 91 secured to the rear end of the plate 87 at one end as at 92 and to the underside of the bracket 90 as at 93, tends to urge the plate 87 forwardly in the bracket 88. When the drawer 23 is in closed position as shown in Fig. 4, this forward sliding movement of the plate 87 is halted by an abutment 94 fixed to the upper rear edge of

the drawer front. A reinforcing angle **95** is welded to the drawer front structure, overlying the adjoining edges of the rear skin **45** and the web **46** and the abutment **94** is preferably fixed to the upper leg of the angle **95** in direct line for engagement by the forward end of the plate **87**.

When the drawer **23** is in closed position the parts are as shown in Fig. 4 where it will be seen that the main control rod **74** has pushed the plunger **77** downwardly in its opening **96** in the web **46**. When the thumb latch control **62** is actuated the main control rod **74** is elevated, permitting the plunger **77** to be raised by its spring **79** so that its lower end is spaced slightly upwardly from the adjacent end of the lower control rod **80**. Upon the outward movement of the drawer **23**, the abutment **94** recedes from the adjacent end of the plate **87**, permitting the spring **91** to slide the plate outwardly so that it underlies the lower end of the plunger **77** to thereby prevent the downward movement of the plunger, should it be undertaken to lock the top drawer **22**.

Upon the closing of the drawer **23** in the direction of the arrow shown in Fig. 6, the abutment **94** strikes the outer end of the plate **87** and forces the same rearwardly against the tension of its spring **91** until the drawer is completely closed and the web **46** of the drawer front has been brought into alignment with the plunger **77** so that the latter can be forced downwardly into contact with the upper end of the control rod **80** which is reciprocably mounted in the opening **96** in web **46**.

Thus, with this structure, locking of the top drawer is substantially impeded so long as any one of the lower drawers remains in a partially open position.

As previously stated, one of the primary objects of the present invention is to shield the critical locking areas of the cabinet against unauthorized tampering. It is highly important that the area immediately surrounding the lateral edges of the drawer fronts, be encased so as to prevent the entrance of any tool in the vicinity of the front portions of the drawers. This is accomplished in the present invention by providing an encircling band **96** which in actual practice is approximately ¼ inch thick and 4 inches wide and laminated in five plies of suitable tool resistant metal sheets. As best seen in Figs. 4 and 7, this laminated protecting band **96** is disposed substantially midway between the outer shell **21** and the inner shell housing **26** with its forward edge welded as at **97** to the uprights **30** and cross members **31** of the front frame of the cabinet. The band **96** is formed of four members welded together at their adjacent ends to provide a substantially rectangular reinforcement which extends entirely around the top, sides and bottom of the cabinet and projects rearwardly from the very front edge of the cabinet to a point sufficiently beyond the critical locking areas to completely shield the latter. In cross sectional profile each of the members of the protecting band **96** is bent laterally along its longitudinal axis to form a substantially concave outer surface **98** opposing the adjacent portions of the respective sections of the outer shell **21**. The purpose of this angular contour of the outer surface of the band **96** is to present a further obstacle to unauthorized entry by the use of drills or punches in the area surrounding the locking mechanism. In other words, should a tool be driven through the outer shell **21**, the angular surface **98** of the band **96** would render considerably more difficult the penetration of the hardened steel plates which form the band.

Furthermore, by disposing the protecting band **96** intermediate the inner and outer shells, insulation can be inserted between the band **96** and the inner shell into the area immediately surrounding the lock bolts **69** and **70**.

Preferably, this laminated protecting band consists of hardened steel plates, the two alternate inner layers being of metal capable of being tempered to a tool resisting hardness. The material is generally known to the trades as tool resisting jail and bank steel and can be tempered to a degree of hardness which will resist tool cutting to a very practical degree.

The front area of each drawer is similarly protected by a laminated shield generally indicated by the numeral **99**, which is located just inside the front skin **44** of each drawer and extends both vertically and transversely across the entire front. This shield **99** is also formed in five plies of metal with the two alternate inner layers capable of being tempered to a tool resisting hardness and is preferably built up of a series of sections **99*a*** to **99*f*** inclusive, as shown in dotted lines in Fig. 3. These sections are cut to fit into the drawer front in edgewise engagement and are continuously welded to form a composite plate which completely overlies the locking area. The composite plate **99** may be secured in place by providing a downturned flange **101** at the front edge of the web **46** of the drawer front as shown in Fig. 4 to which the plate is welded.

The reason for forming the plate **99** in sections and welding them together in edgewise relation is to facilitate the installation of the protecting shield. Due to the contour of the drawer front and the necessity of accommodating the various elements of the locking mechanism, it would be inconvenient or impossible to employ a single sheet of laminated material. However, with the sections as described, the plate can be assembled with little difficulty and when the sections are welded together a protecting plate of maximum strength and resistance is provided.

As an added precaution against tampering with the bolt actuating mechanism and its actuating cam **59**, the five-ply laminated plate **56** is arc welded to the outer face of the lock supporting plate **47**. This plate **56** as previously stated, is drilled to receive the sleeves **58** and **61** which surround the operating shafts **54** and **60**. With a protecting plate such as **56** surrounding these shafts and lying immediately in front of the actuating cams **59** and **59*a***, protection of those vital areas is adequately afforded.

Further protection is afforded in the preferred form of the invention by providing a band of five-ply steel **102** which extends completely around each drawer front at the first offset as shown in Fig. 4. This band is continuously welded as at **103**, to the front plate assembly **99**, and embraces the inner face of the web **46** at the first offset to insure against the entrance of any tool which might seek access around the boundary of the drawer opening.

In order to insure against the entrance of a tool in the vicinity of the plunger mechanism **77** which operatively connects the control rods **74** and **80**, a substantially U-shaped shield **104** envelops the plunger **77** and its sleeve **78**. This shield is shown in detail in Fig. 5 and its installation in Fig. 4. The shield **104** is also in the form of a laminated 5-ply steel section which fits in the bulk head between the drawer openings in spaced relation to the plunger sleeve **78**. A pair of angle irons **105** welded to the free edges of the U-shaped shield **104** at top and bottom, are secured by welding to the adjacent faces of the inner surface of the bulk head **89** as shown in Fig. 4. Thus, the curved outer face of the shield **104** presents an affective obstacle to the entrance of any tool through the jamb frame and the forward end of the bulk head, should an effort be made to tamper with the gang lock mechanism at this point.

Another feature of the present invention resides in the provision of an automatic bolt holding device for retaining the locking bolts **69** and **70** in an unlocked position while the drawer is opened. As will be seen from Figs. 11 and 12, this device which is generally represented by the numeral **106**, consists of a yoke member **107** which is eccentrically mounted in vertical position, for pivotal movement about a pivot pin or screw **108** secured to the inwardly projecting end **109** of an angle iron support or bracket **110** which is secured to

the lock supporting channel 48*a*. The device **106** is located in the drawer head adjacent the locking end of each of the lock bolts **70**—**70***a* of the respective drawers, said lock bolt being provided with an annular recess **111**, spaced inwardly from its locking end. The forward edge of the yoke **107** is recessed as at **112** at its upper corner to provide a shoulder which is adapted to be brought into and out of engagement with the annular recess **111** on the lock bolt, upon the pivotal movement of the yoke **107**. The corresponding lower corner of the yoke is turned outwardly at an angle as at **113** to provide a spring abutment for a leaf spring **114** fastened at one end **115** to the angle bracket **110** while its opposite end maintains a spring tensioned engagement with the spring abutment **113**. Thus, the yoke **107** is normally urged to rotate clockwise about its axis **108** (as viewed in Fig. 11) to force the vertical shoulder formed by the recess **112** into engagement with the lock bolt recess **111** when the latter is brought into registry by the retraction by the bolt lock **70**. The opposite or rear edge of the yoke **107** is bent at right angles in the direction opposite to the spring abutment **113**, to provide an actuating flange **116** which is in line for engagement by a stud **117** or any suitable abutment, mounted in fixed relation in the drawer receiving opening. The stud or abutment **117** is adapted to be projected through a suitable opening **118** in the rear skin **47** of the drawer head, so that when the drawer reaches its closed position the abutment **117** contacts the flange **116** on the yoke **107**, rocking the latter about its pivot **108** in counterclockwise direction to remove the shoulder **112** from the recess **111** in the lock bolt **70**, to thus permit the projection of said lock bolt into locked position. On the other hand, when the drawer is pulled outwardly, the spring **114** rocks the yoke **107** in clockwise direction and automatically shifts the shoulder **112** into the recess **111** to retain the lock bolt **70** in unlocked position. It will be understood that a similar bolt-holding device is employed in each of the drawers of the cabinet.

In order to provide for proper adjustment of the yoke **107**, to insure alignment of the recess **111** with the shoulder **112**, the supporting angle **110** is slidably mounted on the channel 48*a* by means of slots and screws **119**, as shown in Fig. 3.

It will be apparent that a file cabinet constructed in accordance with the present invention is practically inaccessible to unauthorized tampering. The front face of each of the drawers is shielded by the plates **99**, which completely cover the locking mechanism, and the lateral edges of the drawers are shielded by the plates **96** adjacent the jamb, and the lateral edges of the drawers per se are protected by the surrounding band **102**. Also, the improved lock mechanism and automatic lock-holding device which are particularly adapted to the structural innovations of the invention provide for efficient and accurate lock control.

From the foregoing it is believed that the invention may be readily understood by those skilled in the art without further description, it being borne in mind that numerous changes may be made in the details of construction without departing from the spirit of the invention as set forth in the following claims.

We claim:

1. A security file, comprising a cabinet, a series of superimposed drawer receiving openings in said cabinet, separated at their forward ends by horizontal compartments, drawers slidably mounted in respective openings, the front of each drawer being formed by a pair of parallel, spaced walls, defining a lock and bolt receiving chamber, a protecting shield comprising a plate of laminated tool-resistant metal extending entirely across the inner surfaces of the front walls of said chambers, a main lock mechanism in the chamber of the uppermost drawer, secondary lock mechanisms in the chambers of succeeding drawers, a main control rod in said uppermost drawer, operatively connected to said main lock mechanism and vertically shiftable thereby, vertically aligned secondary control rods in each of the succeeding drawers, an independent coupling rod in each of the compartments between adjacent drawers, aligned for abutment by the control rod of the drawer next above and next below, a protecting metal shield extending entirely across the inner surface of said horizontal compartments in substantial vertical alignment with said first-named shield, means operated by said secondary control rods for preventing manipulations of respective secondary lock mechanisms, whereby major portions of said lock mechanisms are protected against access and upon locking of said main lock mechanism, the succeeding lock mechanisms are collectively locked.

2. A security file as claimed in claim 1, including means operable upon the opening of any lower drawer for impeding locking of all of said lock mechanisms.

3. A security file as claimed in claim 1, including means operable upon the opening of any lower drawer, to intercept the respective coupling rods to impede locking of all said lock mechanisms.

4. A security file as claimed in claim 1, including a spring biased plate slidably mounted on the underside of each of said horizontal compartments and normally tensioned for movement into the path of the respective coupling rod, an abutment on the respective drawer front, engageable by said plate in advance of the limit of closing movement of said drawer, to remove said plate from said path and thereby render said control rods engageably responsive to said couplings, said couplings urging said control rods to retain the drawers locked.

5. A security file as claimed in claim 1, including a laminated second protecting shield of tool resistant metal enveloping said coupling rods and spaced rearwardly of the first-named protecting shield.

6. A security file as claimed in claim 5, wherein said last named protecting shield is substantially U-shaped in cross section to present a convex protecting surface toward the front of said cabinet.

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