The present invention is directed to locking devices, particularly for cabinets having doors or drawers which are capable of being locked simultaneously.

It is among the objects of the invention to devise a gang lock adapted to be installed in a small space, having a minimum of parts and which is inexpensive to manufacture.

It is also among the objects of the invention to produce a latching or locking arrangement of the above type which may be inserted in a narrow space on the side and top or bottom of a cabinet and which does not require the use of machined elements, whereby the assembly of the elements does not require a high degree of skill for the installation thereof.

It is further among the objects of the invention to provide a mechanism which is positive in its operation in locking and unlocking the drawers, doors or slides of a cabinet, and in which the structure is simple but highly effective.

In practicing the invention there is provided a locking bar along one side of the cabinet and usually in a double wall thereof. The bar is adapted to move up and down and have latches, which enter keepers in the drawers or doors, are operated through the bar. An arm in the top of the cabinet has a cam entering an opening near the top of the bar and it is operated horizontally by a key or other element to lower or raise the bar so that it performs its intended function. Adjacent to each drawer is a locking lug pivoted on the cabinet and so connected to the locking bar as to be inserted into an opening or slot in the drawer to lock it by movement of the bar vertically.

The invention is more fully described in connection with the accompanying drawing constituting a part hereof, in which like reference characters indicate like parts, and which FIG. 1 is a fragmentary front elevational view of the upper part of a cabinet provided with the present invention; FIG. 2 is a fragmentary perspective view of the side of the cabinet, some parts being broken away for clearness, and having the elements of the operating mechanism for latching; FIG. 3 is a top plan view of the top of the cabinet, some parts being omitted and some parts being in section; FIG. 4 is a side elevational view of the mechanism shown in FIG. 3, and in which the device is in locking position, some parts being broken away and others being in section to more clearly indicate the structure; and FIG. 5 is a view similar to FIG. 4 and illustrating the position of the elements in inoperative or unlocked position.

With reference to the drawing, the cabinet 1 is shown as having sliding drawers 2 and a hollow top 3. Within channel 4 at one side is a flat vertical locking bar 5 having a series of openings 6 therein, there being such an opening alongside each drawer. At the top of bar 5 is an opening or keeper 7 for the reception of a cam. Bracket 8 has pivoted therein a cam 9. At the opposite side of the cam is horizontal arm 11, the end of which is pivoted to the cam at 12.

The other end of arm 11 is pivoted to link 14 at 15. The other end of link 14 is pivoted at 16 to extension 17 mounted in the cabinet. A lock 18 has a tongue extending therefrom and into angular hole 13 of link 13.

Pivoted at 18 is the latch which has a nose 19 adapted to enter slot 20 of the drawer. It has a tail 21 which is joined to the nose by neck 22 having a rearward hook between tail 21 and nose 19. The tail extends to the left of locking bar 5 with neck 22 in slot 6 when the mechanism is in locking position as shown in FIG. 4. In this position, arm 11, link 13, and extension 17 are in horizontal alignment and only the tip 10' of cam 10 is in opening 7. By turning a key in lock 14' or by other means link 13 is pivoted into the position shown in FIG. 5 causing cam 10 to pivot about pin 9 and moving downward against the bottom of opening 7 causing bar 5 to move downward so that the top of openings 6 press against neck 22 rotating the latch about its pivot 18 counterclockwise into the position seen in FIG. 5, where it is free from openings 20 of the drawer, which is now unlocked. An opening 6' in channel 4 and inner rear wall 1 above opening 6 provides upper and lower aligned holes. The reverse movement of key 14' will straighten the linkage, raise the locking bar, rotate the latch clockwise, and lock the drawer.

Although the invention has been described setting for the single specific embodiment thereof, the invention is not limited thereto as various changes may be made in the details of construction within the spirit of the invention. For instance, in place of linkages 11-13-17 the mechanical equivalents thereof may be employed. Instead of the linkage being at the top of the cabinet, it may be placed at the bottom or even in an intermediate position between two of the drawers. The mechanism including the locking bar may be placed at the rear of the cabinet instead of at the side thereof. While a downward movement of the locking bar unlocks the drawers, the mechanism may be so arranged as to lock the drawers on the downward movement. While the cabinet has been shown as having a double wall within which the locking bar arrangement is mounted, there may be only a single wall, and the arrangement may be within or even outside of the wall.

These and other changes may be made in the details of the shape, size, materials of construction and relative positions, within the scope of the invention which is not to be limited except by the character of the claims appended hereto. In the following claims the term drawers includes doors.

What is claimed is:

1. In a cabinet having a plurality of drawers or doors in alignment, the improvement which comprises a locking bar adjacent to one side of said drawers, openings in said bar for each drawer, a keeper opening in said locking bar, an arm having a locking cam adapted to enter said keeper opening, means for sliding said arm back and forth to selectively lock and unlock said drawers, a latch holder adjacent to said locking bar, a locking lug for each drawer pivoted on said holder and having a nose and a tail extending in opposite directions from said said pivot, said locking bar being in operative relation to said tail, a slot in said drawer for the reception of said nose, said nose when in operative position entering said slot, and said nose and tail entering said keeper opening when in operative position.

2. A cabinet according to claim 1 characterized in that said nose and tail are connected by an intermediate neck.

3. A cabinet according to claim 1 characterized in that said nose has a rearward hook, a pair of aligned holes in said locking bar, said neck entering the lower hole and said hook entering said upper hole.

4. A cabinet according to claim 2 characterized in that said latch holder has an opening in its front face for the reception of said nose, and means at a side thereof for supporting the pivot of said locking lug.
5. A cabinet according to claim 2 characterized in that said latch holder being channel shaped and providing a guide for said locking bar.

6. A cabinet according to claim 1 characterized in that the tip of said locking cam is held in said bar opening, and means are provided for pivoting said cam between open and closed portions of said latch.

7. A cabinet according to claim 6 characterized in that the length of said opening is greater than the depth of said tip.

8. A cabinet according to claim 6 characterized in that the rear of said cam is pivoted and said arm is adapted to oscillate to cause said tip to move from top to bottom of said opening.

9. A cabinet according to claim 6 characterized in that said pivoting means include a link pivoted at one end to said arm, said link having an angular cavity into which the stem of a lock is held.

10. A cabinet according to claim 9 characterized in that said stem extends through said cabinet.

11. A cabinet according to claim 10 characterized in that the length of said opening is greater than the depth of said tip, the rear of said cam is pivoted and said arm is adapted to oscillate to cause said tip to move from top to bottom of said opening, the pivoting means for said arm include a link pivoted at one end to said arm, said link having an angular cavity into which the stem of a lock is held.

12. A cabinet according to claim 1 characterized in that said cabinet has a double side wall defining a space, said locking bar, latch holder and pivot being mounted within said space.

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