

Oct. 3, 1961

W. C. McMAHAN

3,002,800

SECURITY LOCK BAR FOR FILING CABINETS

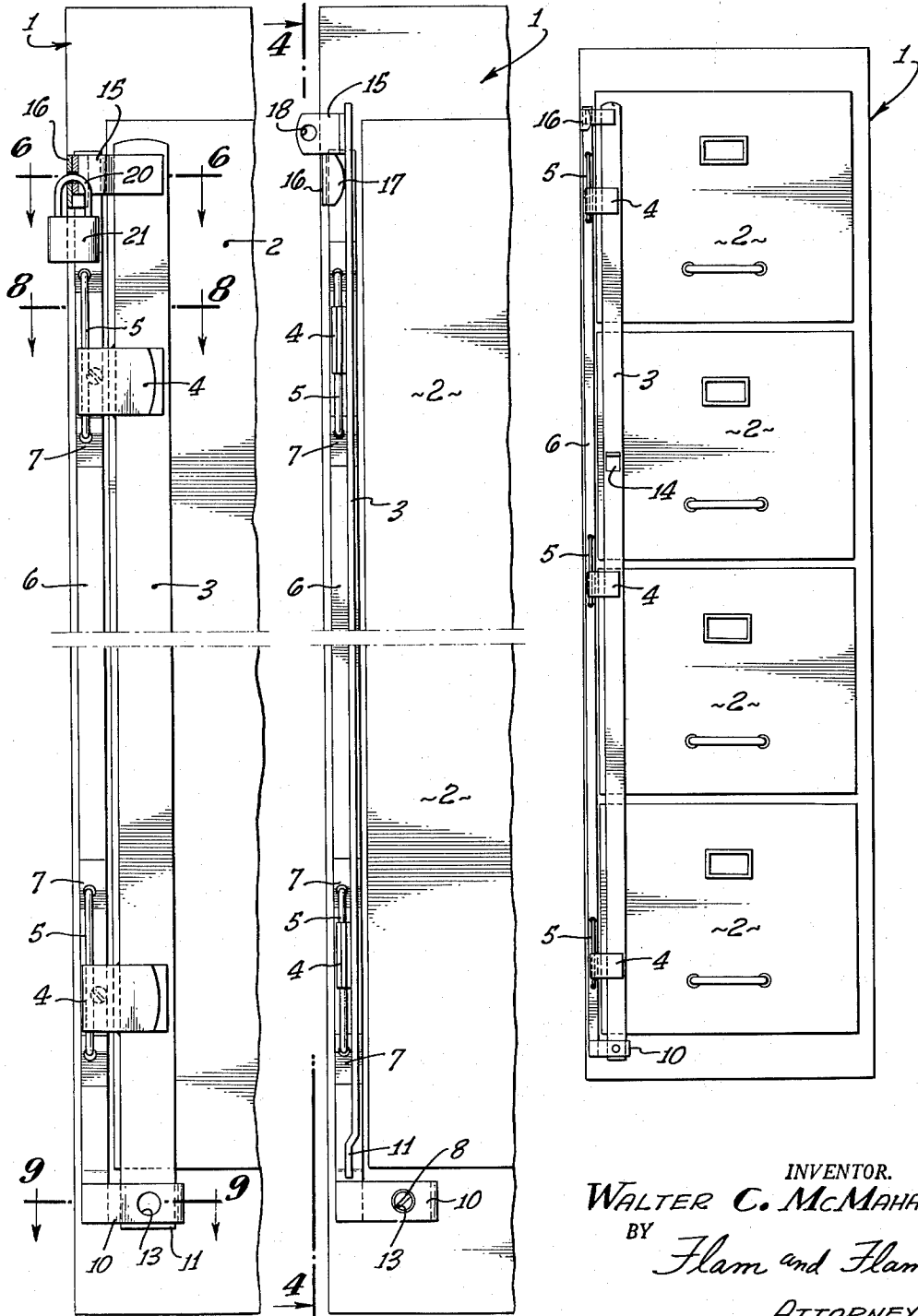
Filed Nov. 17, 1958

2 Sheets-Sheet 1

FIG. 2.

FIG. 3.

FIG. 1.



INVENTOR.
WALTER C. McMAHAN
BY
Flam and Flam
ATTORNEYS.

Oct. 3, 1961

W. C. McMAHAN

3,002,800

SECURITY LOCK BAR FOR FILING CABINETS

Filed Nov. 17, 1958

2 Sheets-Sheet 2

FIG. 4.

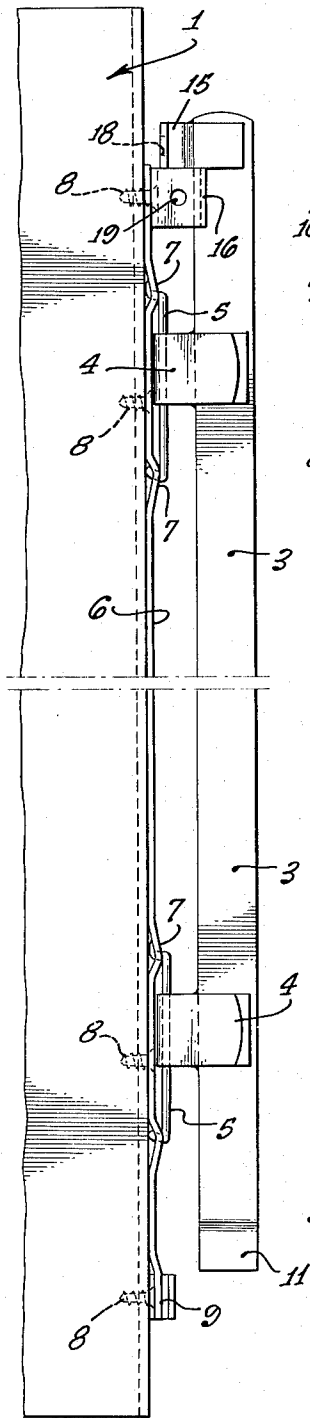


FIG. 5.

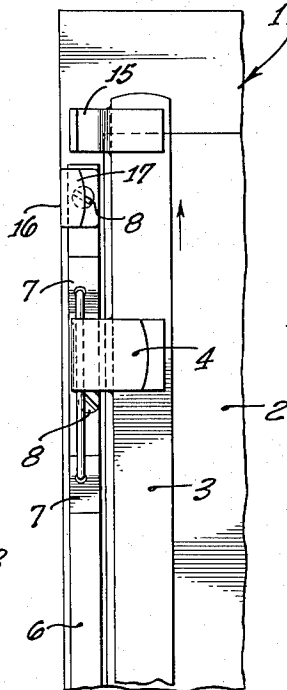


FIG. 6.

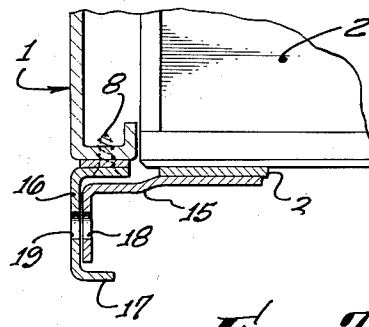


FIG. 7.

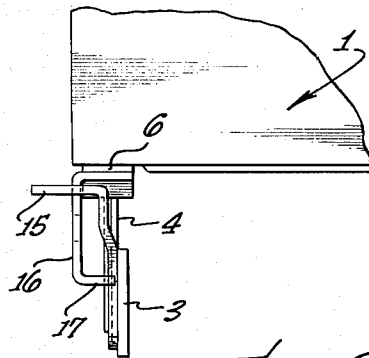


FIG. 8.

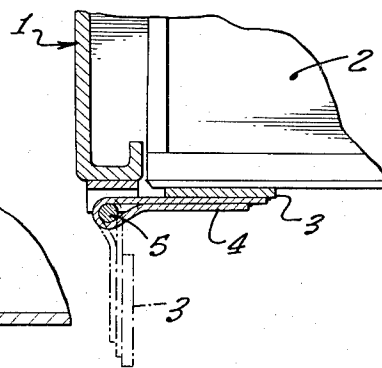
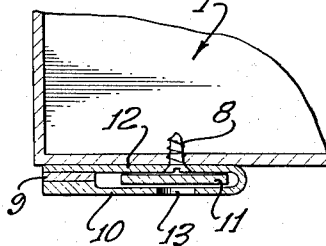


FIG. 9.



INVENTOR.
WALTER C. McMAHAN
BY
Flam and Flam
ATTORNEYS

1

3,002,800

SECURITY LOCK BAR FOR FILING CABINETS

Walter C. McMahan, Escondido, Calif., assignor to McMahan Brothers Mfg. Co., Inc., Los Angeles, Calif., a corporation of California

Filed Nov. 17, 1958, Ser. No. 774,461

5 Claims. (Cl. 312-216)

This invention relates to filing cabinet locks.

Locks, utilizing keys, may be installed as a regular feature for each drawer of the cabinet. Such devices, however, may be violated without immediate detection. For government security purposes where files of confidential or secret matter are in use, it is now often required that a locking bar extend over the drawers, so that violation of the lock may be immediately apparent.

It is one of the objects of this invention to provide a simple locking bar mechanism of this character that may be easily and quickly installed.

It is another object of this invention to make it possible to manipulate the lock to releasing and locking position without the necessity of moving or stacking heavy bars. When the lock is released, the mechanism assumes an inconspicuous position, and presents no sharp corners or edges that may present safety hazards.

It is still another object of this invention to provide a lock of this character that requires no appreciable effort to move from open to closed position, or vice versa.

It is still another object of this invention to provide a locking bar that extends vertically across the file drawers, and that is long enough to lock a five-drawer file cabinet, and yet short enough not to extend beyond the top of a four-drawer file cabinet. Accordingly, the same lock device may be used for either the four or five drawer cabinets.

It is yet another object of this invention to provide a lock structure that does not mutilate the cabinet and that may be easily removed if desired.

This invention possesses many other advantages, and has other objects which may be made more clearly apparent from a consideration of one embodiment of the invention. For this purpose, there is shown a form in the drawings accompanying and forming part of the present specification. This form will now be described in detail, illustrating the general principles of the invention; but it is to be understood that this detailed description is not to be taken in a limiting sense, since the scope of this invention is best defined by the appended claims.

Referring to the drawings:

FIGURE 1 is a front elevation of a file drawer cabinet, with a lock bar installed in a restraining position;

FIG. 2 is an enlarged fragmentary view, similar to FIG. 1, illustrating the manner in which a padlock may be utilized for holding the locking bar in locked position, the figure being partly broken away to reduce its size;

FIG. 3 is a view similar to FIG. 2, but with the locking bar in the releasing position;

FIG. 4 is a side elevation, taken along a plane corresponding to the line 4-4 of FIG. 3;

FIG. 5 is an enlarged fragmentary view similar to FIG. 1, but illustrating the first step in releasing the locking bar;

FIG. 6 is a sectional view taken along a plane corresponding to line 6-6 of FIG. 2, the padlock being omitted;

FIG. 7 is a fragmentary plan view illustrating the locking bar in releasing position; and

FIGS. 8 and 9 are fragmentary sectional views taken along planes corresponding to lines 8-8 and 9-9 of FIG. 2.

In FIGURE 1 a filing cabinet 1 is illustrated, having four drawers 2. A bar 3 is shown as extending across

2

drawers 2 in a vertical direction and adjacent the left hand edge thereof for preventing opening of the drawers 2. The bar 3, although shown as cooperating with a four drawer file cabinet, may be so arranged as to cooperate at its upper end with a lower portion of a fifth cabinet drawer in the event a five-drawer cabinet is used. The bar 3 in no event extends beyond the top of cabinet 1, which is thus left unimpeded.

The bar 3 is arranged to be moved about a vertical axis so as to assume the releasing position of FIG. 3. For this purpose a plurality of hinge leaves 4 is utilized, cooperating with hinge pins 5. In the present instance, three such leaves are shown, longitudinally spaced along the bar 3. As shown most clearly in FIG. 8, each hinge leaf is formed of sheet metal folded to form an eye for receiving the corresponding pin 5 and welded or otherwise appropriately attached to the bar 3.

The pins 5, as shown most clearly in FIG. 4, are supported on a vertical strip 6. This strip has offset portions or projections 7 for receiving the bent ends of the pins 5. These bent ends may be appropriately attached in a permanent manner as by welding to the offset portions 7. Furthermore, the pins 5 are considerably longer than the corresponding hinge leaves 4 so as to permit the strip 3 to be raised vertically to a position as indicated in FIG. 3.

The strip 6 is attached to the frame of the cabinet 1 as by the aid of a plurality of tapered screws 8, which cut their own threads in apertures previously provided in the frame of cabinet 1 (see, for example, FIG. 6). Furthermore, the strip 6 has an offset portion 9 (FIGS. 4 and 9) adapted to support a socket-forming member 10. This socket-forming member 10 is formed of appropriate metal, bent on itself and embracing the offset portion 9. It is intended to receive the lower offset portion 11 of the locking bar 3 (see FIGS. 1 and 3).

The inner leaf 12 of the member 10 is adapted to be attached to the lower portion of the frame of the cabinet 1, as by the aid of another tapered screw 8. To gain access to the aperture in which the screw 8 is threaded, the outer leaf of the socket 10 is provided with a clearance aperture 13.

In the restraining position of FIG. 1, the hinge leaves 4 conceal the screws 8, and the lower end 11 of the bar 3 conceals the screw 8 which passes through one of the elements of the socket-forming member 10. However, when the bar 3 is lifted to the position of FIG. 5, these screws are exposed and in this way the supporting strip 6 may be readily installed. In the restraining position of FIG. 1 all of the screws are hidden from view so that any unauthorized individual would not be able to gain access to the screws 8 for removing the locking structure.

In order to facilitate lifting of the locking bar 3, use is made of a finger hold 14 (FIG. 1) that is attached to bar 3.

As shown most clearly in FIGS. 2 and 6, an ear 15 is attached as by welding adjacent the upper end of the bar 3. This ear is adapted to lie adjacent another ear 16 attached as by welding to the upper end of strip 6. The ear 16 has a turned-in portion 17. Apertures 18 and 19 respectively in the ears 15 and 16 are aligned in the restraining position of FIG. 1, for the passage of a locking bolt 20 (see FIG. 2) of the padlock 21.

In the open position of FIG. 3, the ear 15 rests on the top of the ear 16 so as to be restrained in this open position. This is also shown in FIG. 7.

Assuming that the bar 3 is in the unlocked position of FIG. 3, the bar 3 can be moved about the axis of the pins 5 to overlie the drawers 2. Then the bar 3 may be lowered so that the lower end 11 moves into the socket formed by the member 10. This position is shown in FIG. 1. Padlock 21 may then be utilized for restraining

3

the bar 3 from being lifted from the socket-forming member 10 and on the hinge pins 5.

With the aid of this locking apparatus the locking bar is never physically removed from the filing cabinet. It can be swung to the unlocked position of FIG. 3, and left in that position until it is desired to lock the drawers.

The inventor claims:

1. In a file cabinet lock structure for a group of adjacent drawers: a bar adapted to extend over the group and to be locked in that position; means providing an axis of angular motion for the bar, the axis being parallel to the length of the bar; a pair of ears, respectively carried by the bar and by the means that provides the axis of angular motion; said ears lying close together when the bar is in restraining position across the drawers; said ears being so arranged that they may be locked together; said means that provides the axis of angular motion being such as to permit the bar to move longitudinally to cause the ears to be moved out of alignment whereby the bar may be angularly moved to free the drawers; stationary socket means into which an end of the bar projects when the ears lie adjacent each other; said means providing the axis having longitudinally aligned pins; and spaced hinge elements carried by the bar and cooperating with the pins, the pins being elongated to permit the bar to be moved axially of the pins.

2. In a file cabinet lock structure for a group of adjacent drawers: a bar adapted to extend over the group and to be locked in that position; means providing an axis of angular motion for the bar, the axis being parallel to the length of the bar, and spaced from the bar; a pair of ears, respectively carried by the bar and by the means that provides the axis of angular motion; said ears lying close together when the bar is in restraining position across the drawers; said ears being so arranged that they may be locked together; said means that provides the axis of angular motion being such as to permit the bar to move longitudinally to cause the ears to be moved out of alignment whereby the bar may be angularly moved to free the drawers; stationary socket means into which an end of the bar projects when the ears lie adjacent each other; said means providing the axis having longitudinally aligned pins; and spaced hinge elements carried by the bar and cooperating with the pins, the pins being elongated to permit the bar to be moved axially of the pins; said means providing said axis including a strip supporting said pins; said strip having apertures for screws for attaching the strip to the cabinet and covered by the hinges when the bar is in restraining position.

3. In a file cabinet lock structure for a group of adjacent drawers: a bar adapted to extend over the group and to be locked in that position; means providing an axis of angular motion for the bar, the axis being parallel to the length of the bar; a pair of ears, respectively carried by the bar and by the means that provides the axis of angular motion; said ears lying close together when the bar is in restraining position across the drawers; said ears being so arranged that they may be locked together; said means that provides the axis of angular motion being such as to permit the bar to move longitudinally to cause the ears to be moved out of alignment whereby the bar may be angularly moved to free the drawers; stationary socket means into which an end of the bar projects when

4

the ears lie adjacent each other; said means providing the axis having longitudinally aligned pins; and spaced hinge elements carried by the bar and cooperating with the pins, the pins being elongated to permit the bar to be moved axially of the pins; said means that provides said axis including a strip supporting said pins; said strip having longitudinally spaced apertures for screws for attaching the strip to the cabinet and covered when the bar is in restraining position.

4. In a file cabinet lock structure for a group of adjacent drawers: a bar adapted to extend over the group and to be locked in that position; means providing an axis of angular motion for the bar, the axis being parallel to the length of the bar, and spaced from the bar; and a pair of ears, respectively carried by the bar and by the means that provides the axis of angular motion; said ears lying close together when the bar is in restraining position across the drawers; said ears being so arranged that they may be locked together; said means that provides the axis of angular motion being an elongated strip parallel to the bar and such as to permit the bar to move longitudinally to cause the ears to be moved out of alignment whereby the bar may be angularly moved to free the drawers; said strip having apertures for fastening means for attaching said strip to the cabinet, said apertures being concealed by the bar in locked position.

5. In a file cabinet lock structure for a group of adjacent drawers: a bar adapted to extend over the group and to be locked in that position; means providing an axis of angular motion for the bar, the axis being parallel to the length of the bar, and spaced from the bar; a pair of ears, respectively carried by the bar and by the means that provides the axis of angular motion; said ears lying close together when the bar is in restraining position across the drawers; said ears being so arranged that they may be locked together; said means that provides the axis of angular motion being such as to permit the bar to move longitudinally to cause the ears to be moved out of alignment whereby the bar may be angularly moved to free the drawers; and means carried at an extremity of the axis providing means, for forming a socket for the reception of the bar when the bar is placed in restraining position; the means that provides the axis having apertures for fastening means; said apertures being longitudinally spaced; the socket forming means having spaced sides, both sides being apertured for the reception of said fastening means; and said bar having portions that are adapted to cover the fastening means when the bar is in restraining position.

References Cited in the file of this patent

UNITED STATES PATENTS

401,574	Murphy	Apr. 16, 1889
918,316	Harris	Apr. 13, 1909
1,075,652	Kleber	Oct. 14, 1913
1,419,594	Wheary	June 13, 1922
2,021,549	Harris	Nov. 19, 1935
2,452,512	Wells	Oct. 26, 1948
2,482,341	Holmsten	Sept. 20, 1949

OTHER REFERENCES

Popular Mechanics Magazine, page 102, July 1942.