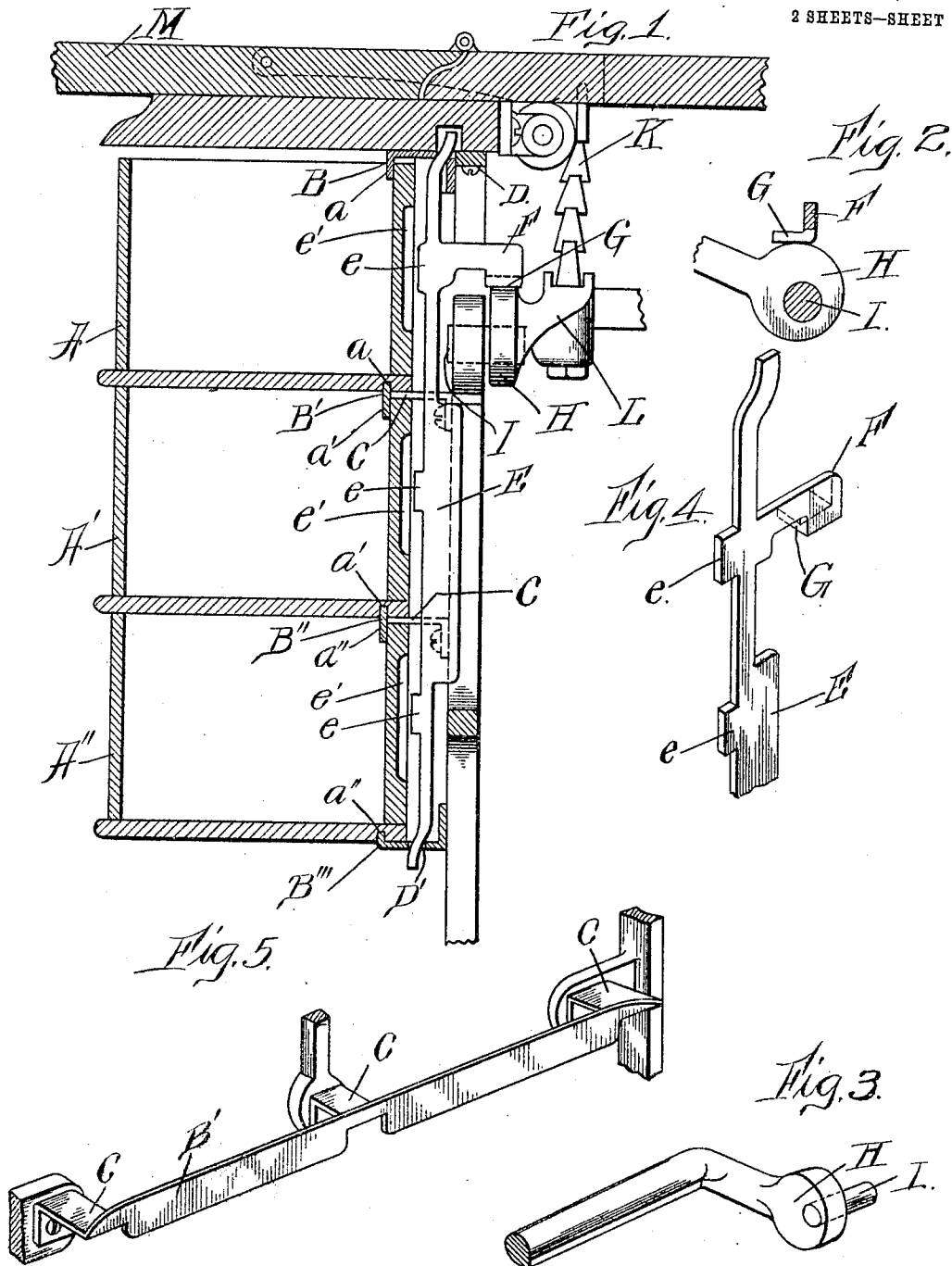


W. C. FREE.
SEWING MACHINE CABINET.
APPLICATION FILED NOV. 19, 1906.

943,867.

Patented Dec. 21, 1909.
2 SHEETS—SHEET 1.



Witnesses:
J. B. Weir
A. C. Bird.

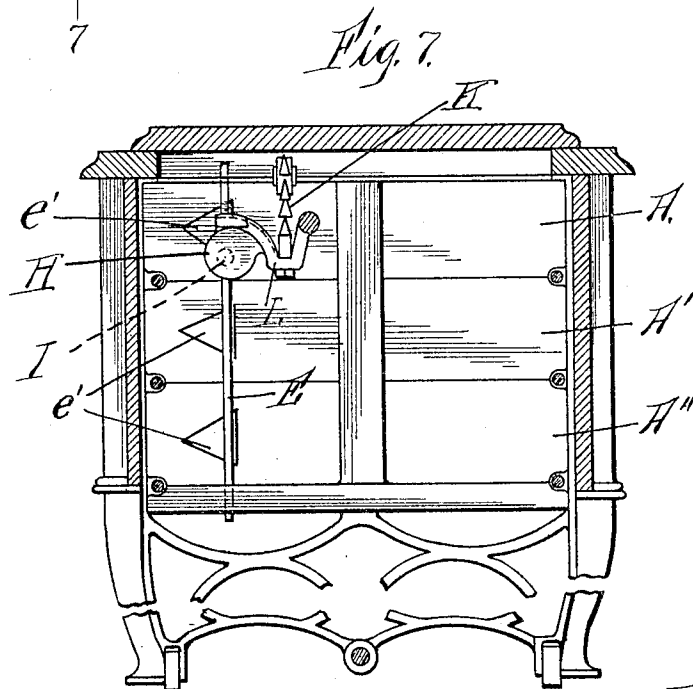
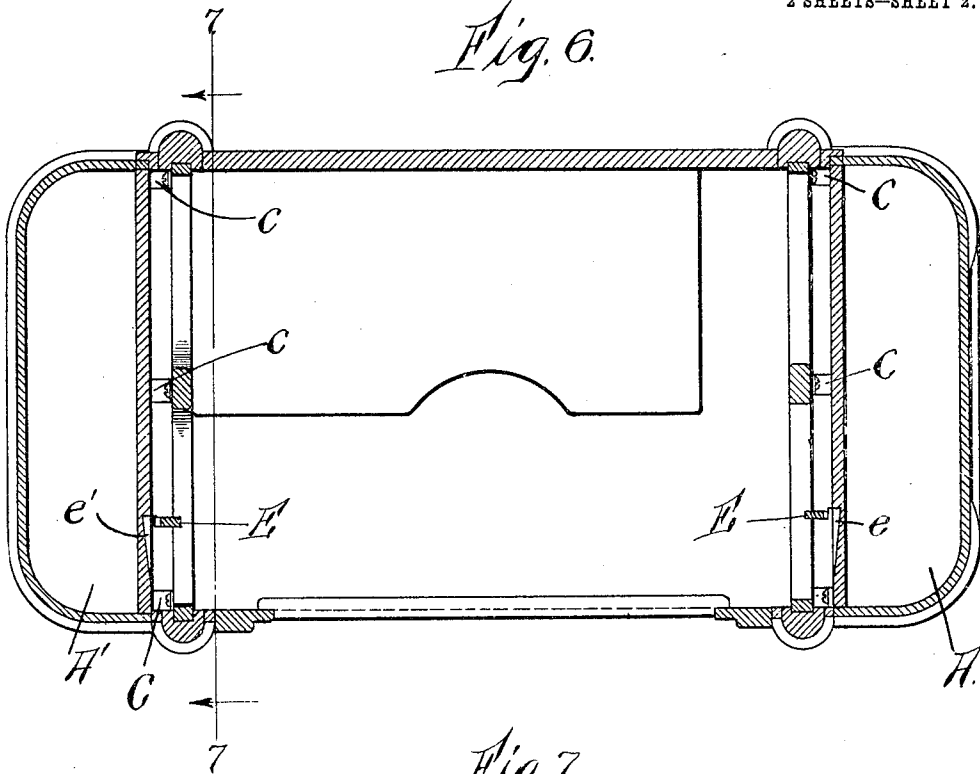
Inventor:
William C. Free
By *[Signature]* His Att'y.

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Inventor:
William C. Free
By J. H. Hopkins, Atty.

UNITED STATES PATENT OFFICE.

WILLIAM C. FREE, OF CHICAGO, ILLINOIS.

SEWING-MACHINE CABINET.

943,867.

Specification of Letters Patent. Patented Dec. 21, 1909.

Application filed November 19, 1906. Serial No. 343,982.

To all whom it may concern:

Be it known that I, WILLIAM C. FREE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sewing-Machine Cabinets, of which the following is a specification.

The subject of the present invention is the means for supporting, locking and unlocking the drawers of the machine cabinet.

In accordance with the invention the drawers are locked and unlocked automatically by the closing and unclosing of the extension leaf by which the machine head is automatically raised and lowered, the closing movement of the extension leaf being utilized for locking the drawers and the unclosing movement for unlocking them.

The invention consists in the features of novelty that are hereinafter described with reference to the accompanying drawings in which—

Figure 1 is a vertical section of a portion of the sewing machine showing the drawers and the mechanism for locking and unlocking them. Fig. 2 is a detail of the cam by which the locking and unlocking bar is actuated. Fig. 3 is a perspective view of said cam and of a fragment of the offset shaft by which it is carried. Fig. 4 is a perspective view of the upper portion of the locking bar. Fig. 5 is a perspective view of one of the intermediate rails for supporting the drawers. Fig. 6 is a horizontal section of a cabinet showing the drawers and the manner in which the locking bars engage them. Fig. 7 is a vertical section of a cabinet looking from the plane of the section toward one of its ends.

The locking mechanism is the same at both ends of the machine, where the machine has drawers at both ends, so that a description of but one end will suffice for the purposes of this application.

In the drawing I have shown a tier of three drawers, A, A', A'', at each end of the machine, but it will be understood that the invention is not limited to the number of drawers at each end of the machine. The following description will, therefore, be confined to a tier of drawers at one end of the machine. Each of the drawers is provided at both top and bottom with slots, *a*—*a*, *a'*—*a'*, *a''*—*a''*, which receive supporting rails B, B', B'', respectively. One of the

intermediate rails (either B' or B'') is shown in perspective in Fig. 5. For forming the intermediate rails the strip of which the rail is made is slit transversely to about its center at its ends and at its midlength, and the slit portions deflected transversely, to provide tongues C of L-shape, the lateral portions of the tongues being secured to the frame of the machine. This provides a vertical flange presented upward and adapted to engage the groove in the bottom of the drawer above it, and a vertical flange presented downward and adapted to engage the top of the drawer below it. A rail of this construction is not adapted to either the top of the upper drawer or the bottom of the lower drawer, and the rails for these two drawers are in the form of three sides of a rectangle, one side being short and adapted to the grooves of the top of the upper drawer and the bottom of the lower drawer, while the other side or the opposite side is longer and adapted to be secured by screws to the end frame of the machine. With this arrangement the top of the upper drawer is closed by contacting with the under side of the top of the cabinet, while the tops of all of the lower drawers are closed by contact with the bottoms of the drawers immediately above them, respectively.

The horizontal portions of the top and bottom rails have through them openings D and D', through which pass the ends of the locking bar E. Those portions of the locking bar which occupy these openings are at an angle with the main portion of the bar so that when the bar is moved endwise its diagonal portions which occupy these openings will cause the bar to partake of a lateral movement toward or from the backs of the drawers, depending upon whether its movement be upward or downward. When its movement is downward the diagonal portions will cause it to move toward the drawers and cause the lugs *e* on its inner edge to be moved into notches *e'* in the drawers, these notches being formed with abrupt rear walls so that when the lugs are in engagement with them the drawers cannot be withdrawn. On the other hand when the locking bar E is moved upward its inclined ends will cause the lugs *e* to be moved out of engagement with the notches so as to permit the drawers to be freely manipulated.

For the purpose of raising and lowering the locking bar it is provided with a lateral

- arm F which in turn is provided with a portion G which bears upon a cam H carried by the main shaft I of the mechanism for raising and lowering the machine head. It is not necessary to here describe this mechanism. Suffice it to say that one end of a chain K is attached to the arm L of the shaft I and its other end to the extension leaf M of the cabinet by any suitable means so that when the leaf is closed the weight of the machine head, acting upon the shaft I will move the cam H to such position that the locking bar will move downward and in doing so its inclined portions D and D' will cause it to move laterally and bring the lugs e into the notches e', while upon the reverse movement of the extension leaf the cam H will cause the locking bar to move upward and disengage the lugs e from the notches e'.
- What I claim as new is—
1. In a sewing machine cabinet, the combination of a plurality of drawers, a hinged extension leaf, a vertically movable locking bar having means for engaging the drawers, a cam, means deriving its movement from the extension leaf for operating the cam and means interposed between the cam and the locking bar for operating the latter, substantially as described.
 2. In a sewing machine cabinet, the combination of a plurality of drawers, a hinged extension leaf, a locking bar movable laterally and having means for engaging the drawers and means deriving its movement from the extension leaf moving the locking bar laterally, substantially as described.

3. In a sewing machine cabinet, the combination of a plurality of drawers, a hinged extension leaf, a vertically movable locking bar having means for engaging the drawers, said locking bar having diagonal ends, supporting rails secured to the cabinet and having openings in which said diagonal ends are adapted to slide, and means deriving its movement from the hinged extension leaf for moving the locking bar endwise, its diagonal ends causing it to move laterally, substantially as described.

4. In a sewing machine cabinet, the combination of a plurality of drawers, a hinged extension leaf, a shaft having a cam, means actuated by the extension leaf for turning said shaft, and a locking bar having a portion engaging said cam and having tongues or projections adapted to engage the drawers, substantially as described.

5. In a sewing machine cabinet, the combination with two drawers located one above the other, of a rail made of sheet metal and having supporting arms joining it about its transverse center, thereby leaving a flange projecting upward and a flange projecting downward said arms being formed by slitting the strip, of which the rail is made, transversely to about its transverse center and deflecting the portions between the slits, substantially as described.

WILLIAM C. FREE.

Witnesses:

P. W. JONES,
L. CODE.