

996,934.

Witnesses
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UNITED STATES PATENT OFFICE.

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DESK-DRAWER-LOCKING MECHANISM.

996,934.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GUSTAV G. LOEHLER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Desk-Drawer-Locking Mechanism; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is a controlling device for the locking mechanism of the drawers of desks and other articles of furniture.

In flat top, pedestal, and other desks it is customary to provide a single lock on the central or main drawer and have such drawer actuate the locking devices for the other drawers. In the use of desks of this character it frequently happens that the lawyer or person using the desk desires to keep valuable papers under lock and key in certain of the drawers of the desk and at the same time allow the remaining drawers open or unlocked for access by his stenographer or clerk. But, owing to the arrangement of the locking means above mentioned, this cannot be effected because when the central drawer is locked the side drawers will lock as soon as they are pushed to closed position.

The principal object of my invention is, therefore, to provide a lock controlling means whereby either or both of the locking devices for the side drawers may be thrown out of operation when the central drawer is locked so that the user of the desk may allow certain of the drawers to remain unlocked while the others are locked.

Further objects of the invention are to provide a lock-controlling mechanism of this character which will be simple and practical and which may be applied to new desks in the course of manufacture and also to desks now in use.

With the foregoing and other objects in view the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a vertical cross sectional view through a desk of well known form showing the application of my invention thereto. Fig. 2 is a vertical section taken on line 2—2 of

Fig. 1. Fig. 3 is a horizontal section taken on line 3—3 of Fig. 1. Figs. 4 and 5 are vertical sections taken on lines 4—4 and 5—5 of Fig. 1. Fig. 6 is a sectional view through the main or central drawer, on an enlarged scale. Fig. 7 is a detail section taken on line 7—7 of Fig. 6. Fig. 8 is a sectional perspective showing one of the front corners of the main drawer.

In the drawings, 1 denotes the main or central drawer and 2 the side drawers of a desk. In the form of desk illustrated the side drawers are locked by pivoted catches 3 which engage the backs of said drawers and which are mounted in a well known manner on a vertically movable bar 4. This bar slides in suitable guides and is elevated by a spring 5 whereby the catches 3 are moved and held in retracted position. Levers 6 or other devices are provided for actuating the bars 4 in the direction to cause the catches 3 to engage the side drawers and such levers or analogous operating members or elements are actuated and controlled by, inclines, cams, or other devices on the main drawer 1. The parts which I have just described are old and well known and form no part of the present invention. Furthermore, I wish it distinctly understood that my invention, which I will now proceed to describe, may be applied to desks and analogous articles having other kinds of lock mechanisms than the one above set forth.

My invention contemplates, broadly, one or more retractable controlling members which coact with the locking devices for the side or lower drawers to control and actuate them, and which are movable from operative to inoperative position. When my invention is embodied in a desk such as the one above described the controlling members 10 have inclined or cam surfaces 11 adapted to engage and actuate the levers 6 and said members 10 are preferably mounted on the main drawer for movement from operative to inoperative position. The members 10 may be of any suitable form and construction and mounted for movement in any suitable manner to attain the desired result, but as illustrated, I prefer to pivot or hinge them for swinging movement. I prefer to mount the members in this manner because when they are in upright or operative position they have a firm support on the rear portions of the side walls of the drawer. As

shown, the members 10 are of substantially angular shape and they are arranged in recessed portions of the side walls of the main or central drawer and are connected to said side walls or sides by hinges 12 each of which latter has one leaf secured to the drawer and its other leaf to the member 10, see Fig. 6. The hinge leaves that are fixed to the members 10 are also fixed to the pivot pins 14 so that when said pivot pins are moved the members 10 will be actuated. If desired springs 13 may be arranged in these hinges for moving the members 10 to their upright or operative position but other means for effecting the same result may be employed if desired.

Any means may be provided for retracting the members 10 but when I employ the hinges 12 I preferably provide their pins or pintles 14 with inwardly extending portions forming rock shafts 15. The latter extend longitudinally along the inner faces of the sides of the central drawer 1 and suitable bearings 16 may be provided for them. If desired, the rods or rock shafts 15 may be set in longitudinal grooves or recesses 17 formed in the side walls of the main drawer and this is preferably where the invention is applied to the desk in its course of manufacture.

The forward ends of the rods 15 may be provided with suitable handles and suitable catches or fastening devices may co-act with them for retaining the members 10 in lowered or retracted position. As illustrated, said ends of the rods 15 have angularly projecting handles 18 and the latter in turn have finger pieces 19 whereby the rods 15 may be readily operated. Any form of catch or lock may be used as above stated, but, as illustrated, an angular spring catch 20 is secured to the inner face of each side of the drawer and has a hook shaped portion 21 to receive the crank arm 18 and hold it in lowered position as will be understood on referring to Figs. 5 and 8. The extremity of the resilient hook shaped portion 21 of the catch is inclined so that when the crank handle 18 is swung downwardly it will automatically engage the portion 21 and at the same time the crank handle 18 may be readily disengaged from the catch when sufficient force is applied to the parts.

In order to prevent anyone from reaching under the central drawer 1 and tampering with the controlling members 10, I provide a suitable horizontal cross piece which may be fixed to the frame beneath the drawer, or which may form an extension of the bottom of the drawer such as indicated at 22. This extended rear portion 22 of the bottom of the drawer unites the rear ends of the drawer sides which latter carry the members 10 and it will be seen that said part 22 not only serves as a guard for the control-

ling members but also to give greater strength to the drawer.

The operation of the invention will be readily understood from the detail description taken in connection with the accompanying drawings. It will be seen that when the controlling member 10 is in its upright or operative position as shown on the left hand side of Figs. 1 and 2, when the central drawer is moved inwardly to its closed position, the incline 11 of said member will engage and actuate the lever to cause the catches 3 to lock the left hand side drawers. When the member 10 is swung downwardly to its inclined position shown on the right hand side of Figs. 1 and 2 and secured in this position (by the crank engaging handle 18 of the hinge rod or pin 15 engaging catch 20) and the central drawer is moved to its closed position, the inclined face 11 of said member 10 will not engage and actuate the coacting lever 6 and consequently the catches 3 on the right hand side of the desk will remain in inoperative position. It will thus be seen that either one or both of the locking devices for the side drawers may be allowed to remain in inoperative or unlocked position when the central drawer 1 is closed and locked.

It is believed that the advantages of the invention will be readily understood and appreciated by those skilled in the art and a further explanation is unnecessary.

While I have illustrated and described in detail the preferred embodiment of my invention in a desk of well known form and construction, I wish it understood that I do not limit myself to the construction and details set forth since changes in the form, proportion and arrangement of parts and in details of construction may be resorted to within the spirit and scope of the invention.

I claim:

1. In mechanism for controlling the locking devices of drawers, the combination of drawer locking means, a main drawer, a controlling member having an incline to coact with the drawer locking means and mounted for movement whereby it may be moved into operative or inoperative relation with respect to the drawer locking means, a spring for maintaining said member in operative position, means for retracting said member and means coacting with the last mentioned means for maintaining said member in retracted position.

2. In mechanism for controlling the locking devices of drawers, the combination of drawer locking means, a main drawer, a controlling member to coact with the drawer locking means, a hinge uniting said member to the main drawer, and a rock shaft extending from the pin of said hinge and provided with an operating handle.

3. In mechanism for controlling the lock-

ing devices of drawers, the combination of drawer locking means, a main drawer, a controlling member to coact with said drawer locking means, a spring hinge uniting said member to the main drawer, a rock shaft extending from the pin of said hinge and having at its end a crank handle and a finger piece, and a spring catch on the main drawer to coact with said crank handle.

4. In mechanism for controlling the locking devices of drawers, the combination of drawer locking means, a main drawer, a horizontal pivot mounted on one side wall of the latter, a vertically swinging controlling member having its lower portion mounted on said horizontal pivot, said member being adapted to swing from an upright position downwardly to an angular position with respect to the upright walls of the main drawer, the top of said controlling member being inclined downwardly to engage and actuate said drawer locking means when said member is in an upright position and the main drawer is closed, and means for operating said controlling member.

5. In mechanism for controlling the locking devices of drawers, the combination of drawer locking means, a main drawer, a horizontal pivot mounted on the latter, a controlling member provided on its upper edge with an incline and mounted on said pivot to swing from an upright position downwardly, said incline being adapted to engage and actuate said drawer locking means when the member is in its upright position and the drawer is closed, means for swinging said controlling member from its upright position downwardly to an inoperative position, and means for holding said controlling member in its lowered or inoperative position.

6. In mechanism for controlling the lock-

ing devices of drawers, the combination of drawer locking means, a main drawer, a horizontal pivot mounted on one side wall of the latter, a controlling member provided with an incline and mounted on said pivot whereby it may swing from an upright position downwardly, the incline on said member being adapted to engage and actuate said drawer locking means when the member is in its upright position and the drawer is closed, a handle for swinging said controlling member from its upright position downwardly to an inoperative position with respect to the drawer locking means, a spring for actuating said member to maintain it in its upright position, and a catch co-acting with said handle to retain said member in its lowered position.

7. In mechanism for controlling the locking devices of drawers, the combination of drawer locking means, a main drawer having the rear end of one of its side walls recessed, a substantially triangularly shaped controlling member arranged in such recess, the upper edge of said member forming a downwardly and rearwardly extending incline, a hinge uniting said member to said side wall of the main drawer whereby said member may swing from an upright position downwardly to an inclined position, the inclined upper edge of said member co-acting with said drawer locking means when said member is in an operative position and the main drawer is closed, and means for actuating said member.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GUSTAV G. LOEHLER.

Witnesses:

S. C. HILL,

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