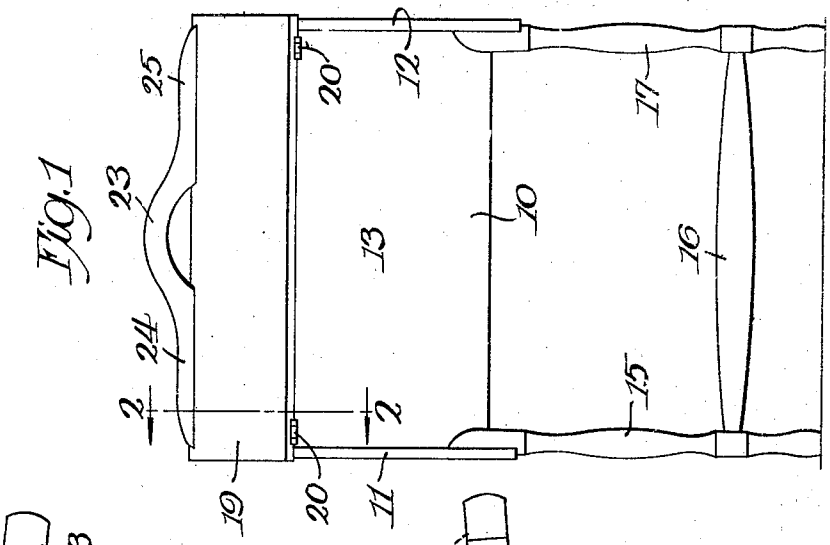
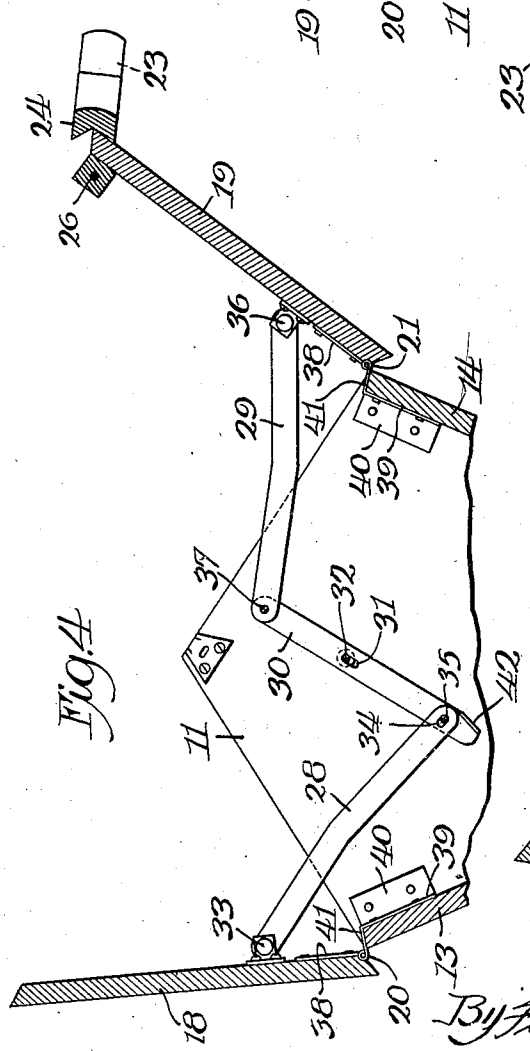
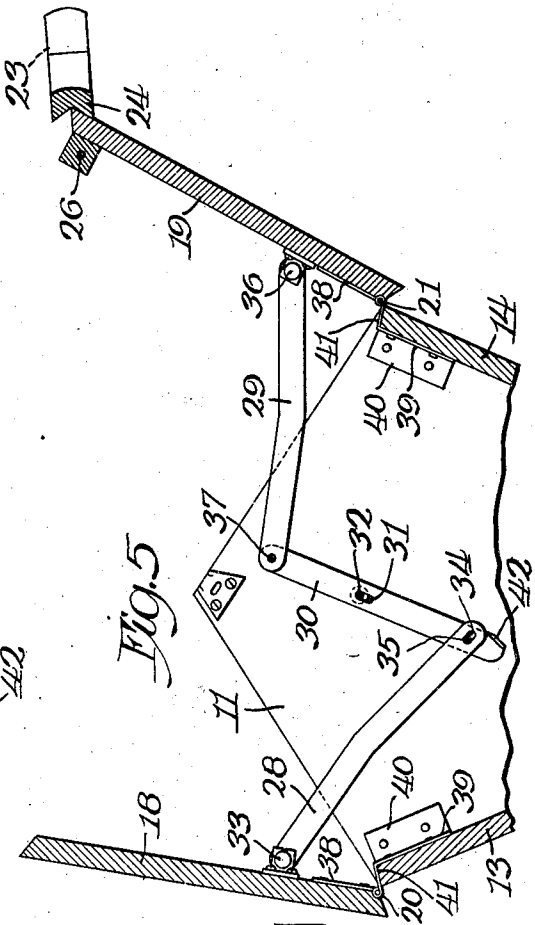
Dec. 9, 1930. W. GILLOOLY 1,784,518

LID CONTROL FOR WORKBOXES

Filed Jan. 23, 1929 2 Sheets-Sheet 1







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LID CONTROL FOR WORKBOXES

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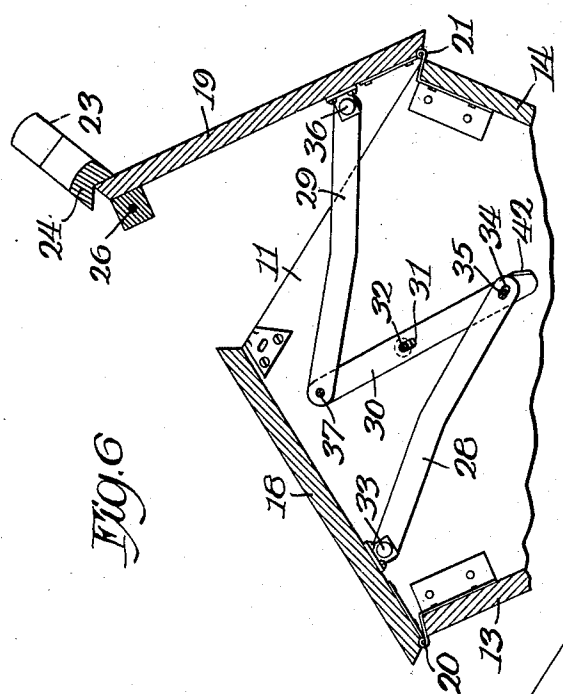


Fig. 6

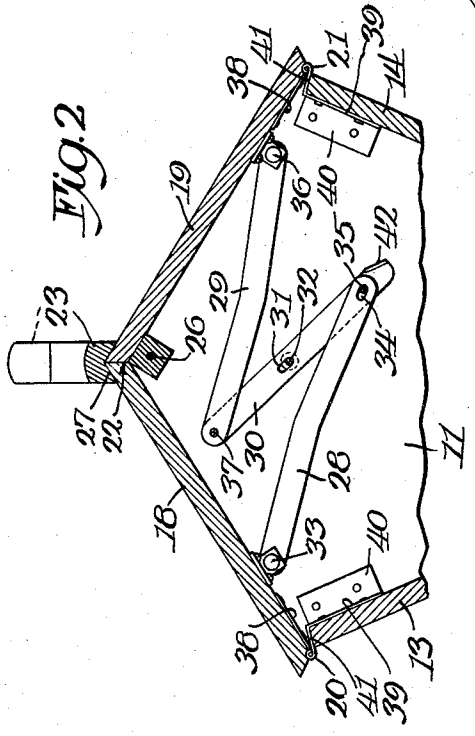


Fig. 2

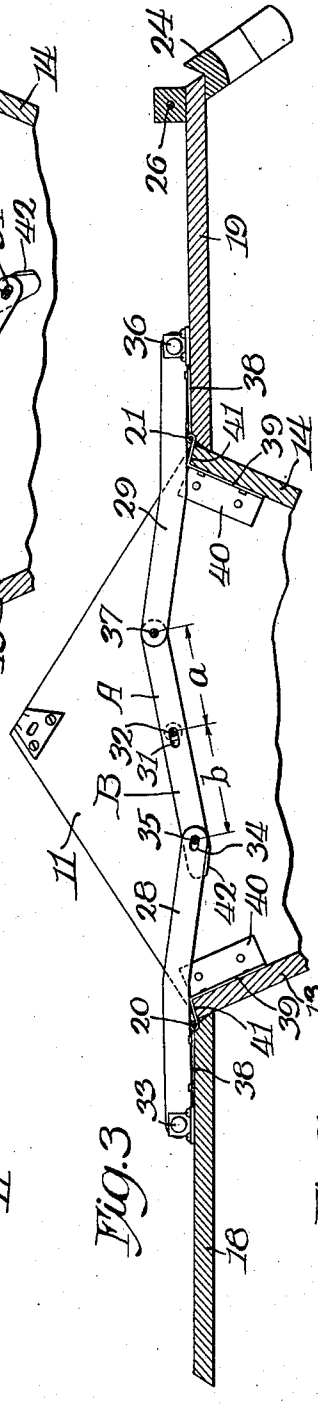


Fig. 3

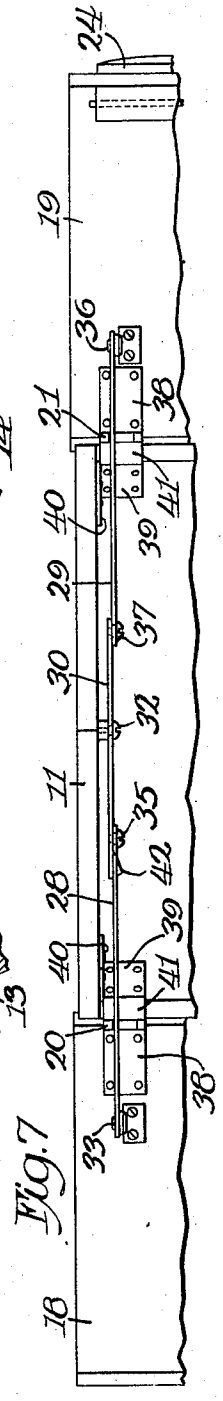


Fig. 7

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UNITED STATES PATENT OFFICE

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LID CONTROL FOR WORKBOXES

Application filed January 23, 1929. Serial No. 334,521.

This invention relates to work boxes and portable cabinets and more particularly to sewing cabinets known in the trade as Priscilla sewing cabinets, and the invention has particular reference to the lid or cover construction and mechanism for controlling the opening and closing movement of the same.

The principal object of the invention is to provide means whereby the closing movement of the lids of a work box, such as a Priscilla sewing cabinet, are caused to move from open to closed position in predetermined timed relation whereby a part carried by one of the lids can be readily brought into overlapping relation with respect to the other lid when in closed position.

Another object of the invention is to provide lid controlling mechanism whereby, when one lid is moved from open to closed position, the other lid will automatically and simultaneously be moved to its closed position in predetermined timed relation to the closing movement of the first lid.

Other objects and advantages of the invention will be understood by reference to the following specification and accompanying drawings in which I have illustrated a Priscilla sewing cabinet having a selected embodiment of lid construction and lid controlling mechanism such as contemplated by my invention.

In the drawings:

Fig. 1 is a side elevation showing the general arrangement of a Priscilla sewing cabinet.

Fig. 2 is a section on the line 2—2 of Fig. 1 on an enlarged scale, the lids being shown in closed position as in Fig. 1.

Fig. 3 is a section similar to Fig. 2 but showing the lids in opened position.

Figs. 4, 5 and 6 are sections similar to Figs. 1 and 2 but showing the relationship between the various parts in progressive stages of the closing movement of the lids; and

Fig. 7 is a plan of the parts shown in Fig. 3.

Referring now to the drawings, and more particularly to Fig. 1, a work box in the form of a Priscilla sewing cabinet is shown as including a main body or receptacle portion 10 which includes end walls 11 and 12 and side walls 13 and 14 (Fig. 2) which are joined in any suitable manner and supported by a suitable leg arrangement as indicated at 15, 16 and 17. Lids 18 and 19 hingedly connected as shown at 20 and 21 respectively to the opposite side walls 13 and 14 are provided. The inner edges of the lids 18 and 19, for all practical purposes, abut against one another as indicated at 22, and a handle 23 having end portions 24 and 25 respectively is secured to one of the lid parts, in the present instance 19. The lid part 19 also carries a locking device 26 which engages the opposite end walls when the lid is in closed position so that the sewing cabinet can be carried about from place to place by means of the handle 23. Suitable means is provided for unlocking the locking mechanism 26 when desired, and the end parts 24 and 25 of the handle overlap an inner marginal portion 27 of the lid 18, as clearly shown in Fig. 2, so that the lid 18 is effectively locked in closed position when the lid 19 is in closed position.

Because of the overlapping arrangement between the handle part and the lid part 18, it will be understood that it is necessary that the lid part 18 be closed before the lid part 19 is closed so that the handle may assume its said overlapping position. I find it desirable to provide mechanism for automatically effecting closing of the lid part 18 before the lid part 19 reaches its closed position, partly for the reason that if no such mechanism is provided, scratching or marring of the finish of the cover part carrying the handle might occur by closing the handle carrying lid first and then closing the other lid on top of the handle. It is also a de-

sirable convenience to have the sewing cabinet provided with mechanism whereby closing of one lid automatically and incidentally effects closing of the other.

For effecting closing of the lids in predetermined timed relation as above indicated desirable, I provide a lever and link mechanism which, in the present instance, includes links 28 and 29 and a lever 30. The lever 30 is provided intermediate its ends with a slot 31 through which a pivot pin 32 passes and which is secured to the adjacent end wall 11. The link 28 is pivotally connected at one end as shown at 33 to the lid 18 and at its other end to one end of the lever 30. The connection between the link 28 and lever 30 is preferably a loose connection which permits relative sliding movement, besides pivotal movement between the link 28 and lever 30. This loose connection is provided by means of a slot 34 in the end of the link 28 and a pivot pin 35 carried by the lever 30. The link 29 is pivotally connected as shown at 36 to the lid 19 and at its other end to the other end of the lever 30 as shown at 37. The pivotal connection 37 between the link 29 and lever 30 may be a fixed pivotal connection which permits only relative pivotal movement between the connected parts.

When the lids are in open position, as shown in Fig. 3, the arrangement is such that the length *a* of the arm A of the lever 30 is less than the length *b* of the arm B of the said lever. When the lids are to be moved to closed position, the lid 19 is preferably actuated through the agency of the handle 25, the lid being swung upwardly and inwardly about its hinged connection 21, thereby incidentally swinging the lever 30 in counter-clockwise direction, about its intermediate pivot 32 through the agency of the link 29. Such movement of the lever 30 will, of course, be imparted to the link 28, the lid 18 being thereby caused to move upwardly and inwardly towards closed position. Because of the greater length of the lever arm part B as compared with the lever arm part A, it will be seen that the pivot 35 carried by the lever will be caused to travel through an arc of greater length than will the pivot 37 carried by the other end of the said lever. It being understood that the links 28 and 29 are pivoted to the lids 18 and 19 at substantially equal distances from the pivots or hinges 20 and 21, it will be seen that the lid 18 will be caused to move towards closed position with a quicker movement than is imparted to the lid 19. Hence, the parts, in the course of their closing movement, may be seen in the position shown in Fig. 4 wherein the lid 18 is almost vertically disposed while the lid 19 is disposed at an angle of around forty-five degrees to the vertical.

When the lid 18 is caused to move beyond substantially vertical position, in the closing direction of movement, the weight of the lid, that is to say gravity, causes the lid 18 to fall or drop a short distance towards closed position, which is permitted by the unoccupied portion of the slot 34 in the inner end of the link 28, such falling movement of the lid being arrested by engagement between the pivot pin 35 and upper end of the slot 34. The position of the parts after such falling movement occurs is shown in Fig. 5. Continued closing movement of the lid 19 causes the link 29 and lever 30 to move to the position shown in Fig. 6, whereby gravity is permitted to continue the closing movement of the lid 18 until the same reaches its fully closed position, as shown in Fig. 6. During the above closing movement of the lid parts 18 and 19, the lever 30 swings about its intermediate pivot 32, the same being located in the upper end of the slot 31 as shown in Figs. 3, 4, 5 and 6.

From the position shown in Fig. 6, the lid 19 is permitted to move to closed position as shown in Fig. 2, because of the provision of the slot 31 in which the intermediate pivot 32 is located. By an inspection and comparison of Figs. 6 and 2, it will be understood that continued closing movement of the lid 19 causes the lever 30 to continue swinging about the pivot 32 and also to move upwardly on the pivot 32 until the latter is disposed in the lower part of the slot 31 substantially as shown in Fig. 2. During such movement of the lever, the pivot pin 35 moves upwardly and outwardly so that at the end of the movement, the pin 35 is disposed in the outer end portion of the slot 34 as shown in Fig. 2. The lid part 19 is thus caused to reach its closed position subsequent to the closing of the lid part 19 and the lid part 18 is caused to move from open to closed position as an incident to the closing movement of the lid 19.

The slots 31 and 35 provide means for permitting equalizing of the total movement imparted to the lids 18 and 19 even though the opposite ends of the lever 30 to which the lids are connected, travel unequal distances. Manifestly, if closing movement is initially imparted to the lid 18 instead of the lid 19, the above described link and lever arrangement will nevertheless be effective to control the closing of the lids so that the lid carrying the overlapping handle part will be closed after the other lid reaches its fully closed position.

The hinges 20 and 21 are of substantially like construction, one being right and the other left, each comprising hinge plates or leaves 38 and 39, the latter being bent to fit over the upper edge of the side walls 13 and 14 and downwardly along the inside face thereof and also provided with a laterally projecting flange part 40. The parts 39 and

40 of the hinges serve as angle irons for reenforcing the connection between the side and end walls. The upper portion 41 of the hinge leaf 39 which is disposed across the upper edge side wall, constitutes a metallic seat for receiving the respective links 28 and 29 which thereby serve to support the lids 18 and 19 in substantially horizontal open position as shown in Fig. 3. The lever 30 is provided at one end with a laterally projecting flange 42 which underlies the lower edge of the link 28 so as to limit relative pivotal movement between the link 28 and lever 30 in the direction incident to opening movement of the lids. Thus, the lids 18 and 19 are rigidly supported in their horizontal or open position wherein they serve as table or shelf space.

I am aware that changes may be made in the construction and arrangement of levers and links as well as in the proportions thereof without departing from the spirit of my invention as defined in the following claims, which should be construed as broadly as possible consistent with the state of the art.

I claim as my invention:

1. In a portable cabinet of the class described, the combination of a receptacle including side and end walls, a pair of lids for closing the top of said receptacle, said lids being hinged to oppositely disposed side walls of said receptacle so as to turn towards and from each other to closed and open position respectively, said lids, when in closed position, having their inner edges substantially abutting one another, a carrying part overlapping adjacent marginal portions of said lids and secured to one of said lids so as to be movable therewith, and means operatively connecting said lids for timing the closing movement thereof so as to cause closing of the lid carrying said part more slowly than the closing of the other lid, thereby permitting said carrying part to assume its overlapping position relative to the first closed lid.

2. In a work box of the class described, the combination of a body part including side and end walls, a pair of lids for closing the top of said body part, respectively hinged to opposite sides thereof so as to swing towards and from each other to closed and open positions respectively, means carried by one of said lids overlapping the other when in closed position, means for locking in closed position, the lid carrying said overlapping part, whereby said overlapping part is effective to lock the other lid in closed position, and means operatively connecting said lids for timing the closing movement thereof, said means including a lever pivotally mounted intermediate its ends, closer to one end than to the other so as to provide lever arms of different lengths on opposite sides of said intermediate pivot, whereby unequal travel is imparted to the opposite ends of said lever when the same is turned on its privot, and means connecting the opposite ends of said lever respectively to said lids.

3. In a portable cabinet of the class described, the combination of a receptacle including side and ends walls, a pair of lids for closing the top of said receptacle, said lids being hinged to oppositely disposed side walls of said receptacle so as to turn towards and from each other to closed and open position respectively, said lids, when in closed position, having their inner edges substantially abutting one another, a part overlapping adjacent marginal portions of said lids and secured to one of said lids so as to be movable therewith, means operatively connecting said lids for timing the closing movement thereof so as to cause closing of the lid carrying said part, after the closing of the other lid, thereby permitting said part to assume its overlapping position relative to the first closed lid, said means including a lever pivotally mounted intermediate its ends closer to one end than to the other, whereby, when said lever is rocked on its pivot, unequal travel will be imparted to its opposite ends, and means connecting the opposite ends of said lever respectively to said lids.

4. In a sewing cabinet of the class described, the combination of a receptacle including side and end walls, a pair of lids for closing the top of said receptacle, said lids being hinged to oppositely disposed side walls of said receptacle so as to turn towards and from each other to closed and open position respectively, said lids, when in closed position, having their inner edges substantially abutting one another, a part overlapping adjacent marginal portions of said lids and secured to one of said lids so as to be movable therewith, means operatively connecting said lids for timing the closing movement thereof so as to cause closing of the lid carrying said part, after the closing of the other lid, thereby permitting said part to assume its overlapping position relative to the first closed lid, said means including a lever pivotally mounted intermediate its ends closer to one end than to the other, whereby, when said lever is rocked on its pivot, unequal travel will be imparted to its opposite ends, and a pair of links connecting the opposite ends of said lever respectively to said lids, one of said links being connected to the end of said lever so as to be capable of limited adjustment in addition to pivotal movement relative thereto, thereby to permit the last closed lid to complete its closing movement after the other lid is closed.

5. In a sewing cabinet of the class described, the combination of a receptacle including side and end walls, a pair of lids for closing the top of said receptacle, said lids being hinged to oppositely disposed side

walls of said receptacle so as to turn towards and from each other to closed and open position respectively, said lids, when in closed position, having their inner edges substantially abutting one another, a part overlapping adjacent marginal portions of said lids and secured to one of said lids so as to be movable therewith, means operatively connecting said lids for timing the closing movement thereof so as to cause closing of the lid carrying said part, after the closing of the other lid, thereby permitting said part to assume its overlapping position relative to the first closed lid, said means including a lever pivotally mounted intermediate its ends closer to one end than to the other, whereby, when said lever is rocked on its pivot, unequal travel will be imparted to its opposite ends, and means connecting the opposite ends of said lever respectively to said lids, the arrangement being provided with means for permitting equalizing of the total movement imparted to said lids.

6. In a sewing cabinet of the class described, the combination of a receptacle including side and end walls, a pair of lids for closing the top of said receptacle, said lids being hinged to oppositely disposed side walls of said receptacle so as to turn towards and from each other to closed and open position respectively, said lids, when in closed position, having their inner edges substantially abutting one another, a part overlapping adjacent marginal portions of said lids and secured to one of said lids so as to be movable therewith, means operatively connecting said lids for timing the closing movement thereof so as to cause closing of the lid carrying said part, after the closing of the other lid, thereby permitting said part to assume its overlapping position relative to the first closed lid, said means including a lever provided with an elongated slot intermediate its ends, a pivot located in said slot and secured to one of said end walls, and links connecting the opposite ends of said lever respectively to said lids.

7. In a sewing cabinet of the class described, the combination of a receptacle including side and end walls, a pair of lids for closing the top of said receptacle, said lids being hinged to oppositely disposed side walls of said receptacle so as to turn towards and from each other to closed and open position respectively, said lids, when in closed position, having their inner edges substantially abutting one another, a part overlapping adjacent marginal portions of said lids and secured to one of said lids so as to be movable therewith, means operatively connecting said lids for timing the closing movement thereof so as to cause closing of the lid carrying said part, after the closing of the other lid, thereby permitting said part to assume its overlapping position relative to the first closed lid, said means including a lever provided with an elongated slot intermediate its ends, a pivot located in said slot and secured to one of said end walls, and links connecting the opposite ends of said lever respectively to said lids, one of said links being also longitudinally adjustably connected to said lever.

8. In a sewing cabinet of the class described, the combination of a receptacle including side and end walls, a pair of lids for closing the top of said receptacle, said lids being hinged to oppositely disposed side walls of said receptacle so as to turn towards and from each other to closed and open position respectively, said lids, when in closed position, having their inner edges substantially abutting one another, a handle overlapping adjacent marginal portions of said lids and secured to one of said lids so as to be movable therewith, means operatively connecting said lids for timing the closing movement thereof so as to cause closing of the lid carrying said handle, after the closing of the other lid, thereby permitting said handle to assume its overlapping position relative to the first closed lid, said means comprising a lever having an elongated slot intermediate its ends, a pivot located in said slot and secured to one of said end walls, and links connecting the opposite ends of said lever respectively to said lids, one of said links being provided with an elongated slot through which passes the pivot connecting such link to said lever.

9. In a sewing cabinet of the class described, the combination of a receptacle including side and end walls, a pair of lids for closing the top of said receptacle, said lids being hinged to oppositely disposed side walls of said receptacle so as to turn towards and from each other to closed and open position respectively, said lids, when in closed position, having their inner edges substantially abutting one another, a part overlapping adjacent marginal portions of said lids and secured to one of said lids so as to be movable therewith, means operatively connecting said lids for timing the closing movement thereof so as to cause closing of the lid carrying said part, after the closing of the other lid, thereby permitting said part to assume its overlapping position relative to the first closed lid, said means including a lever provided with an elongated slot intermediate its ends, a pivot located in said slot and secured to one of said end walls, links connecting the opposite ends of said lever respectively to said lids, said links being arranged to engage the upper edges of the respectively adjacent side walls when said lids are in open position, and stop means for limiting relative pivotal movement between said links in the opening movement directions.

10. In a sewing cabinet of the class described, the combination of a receptacle in-

cluding side and end walls, a pair of lids for closing the top of said receptacle, said lids being hinged to oppositely disposed side walls of said receptacle so as to turn towards and from each other to closed and open position respectively, said lids, when in closed position, having their inner edges substantially abutting one another, a part overlapping adjacent marginal portions of said lids and secured to one of said lids so as to be movable therewith, means operatively connecting said lids for timing the closing movement thereof so as to cause closing of the lid carrying said part, after the closing of the other lid, thereby permitting said part to assume its overlapping position relative to the first closed lid, said means including a lever provided with an elongated slot intermediate its ends, a pivot located in said slot and secured to one of said end walls, links connecting the opposite ends of said lever respectively to said lids, and means for limiting opening movement of said lids.

11. In a sewing cabinet of the class described, the combination of a receptacle including side and end walls, a pair of lids for closing the top of said receptacle, said lids being hinged to oppositely disposed side walls of said receptacle so as to turn towards and from each other to closed and open position respectively, said lids, when in closed position, having their inner edges substantially abutting one another, a part overlapping adjacent marginal portions of said lids and secured to one of said lids so as to be movable therewith, means operatively connecting said lids for timing the closing movement thereof so as to cause closing of the lid carrying said part more slowly than the closing of the other lid, thereby permitting said part to assume its overlapping position relative to the first closed lid, said means including a lever provided with an elongated slot intermediate its ends, a pivot located in said slot and secured to one of said end walls, links connecting the opposite ends of said lever respectively to said lids, said links being arranged to engage the upper edges of the respectively adjacent side walls when said lids are in open position, and stop means for limiting relative pivotal movement between said links in the opening movement directions, comprising a laterally projecting flange formed on one end of said lever, integral therewith, for engaging a part of the adjacent link.

12. A device as defined in claim 1, wherein said connecting means comprises a plurality of members having a lost motion connection therebetween.

13. A device as defined in claim 1, wherein said connecting means comprises a plurality of members of unequal length and having a lost motion connection therebetween.

14. A device as defined in claim 1, wherein said connecting means comprises a lever pivoted intermediate its ends on a movable pivot, and links of unequal length pivoted to said lids and to said lever.

15. A device as defined in claim 1, wherein said connecting means comprises a lever pivoted intermediate its ends on a movable pivot, and links of unequal length pivoted to said lids and to said lever, one of said links having a lost motion connection with said lever.

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