

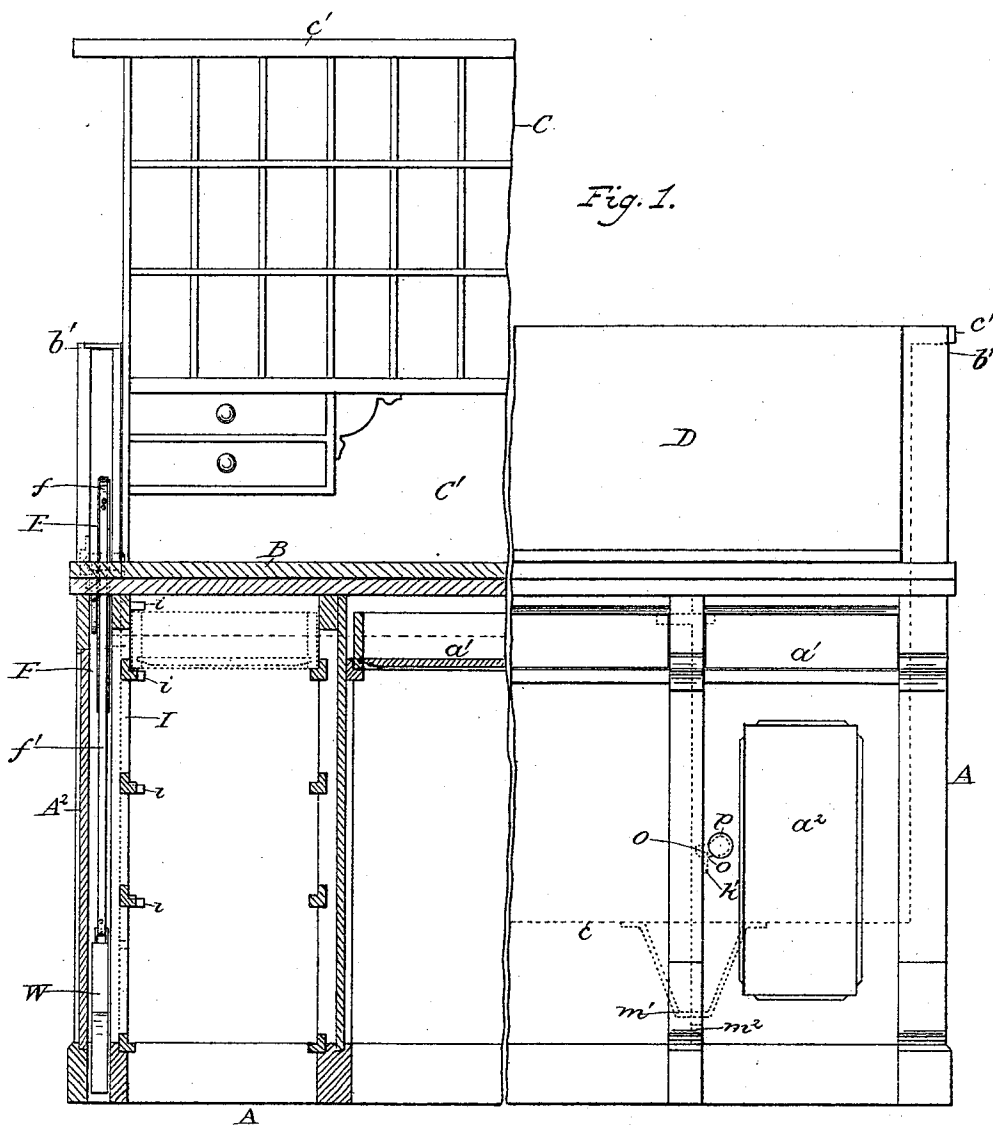
(No Model.)

3 Sheets—Sheet 1.

J. A. LAWSON.
OFFICE DESK.

No. 498,175.

Patented May 23, 1893.



Witnesses: *Charles Selkirk*
A. Selkirk

Joseph A. Lawson
Inventor
by his Attorney.
Alex. Selkirk

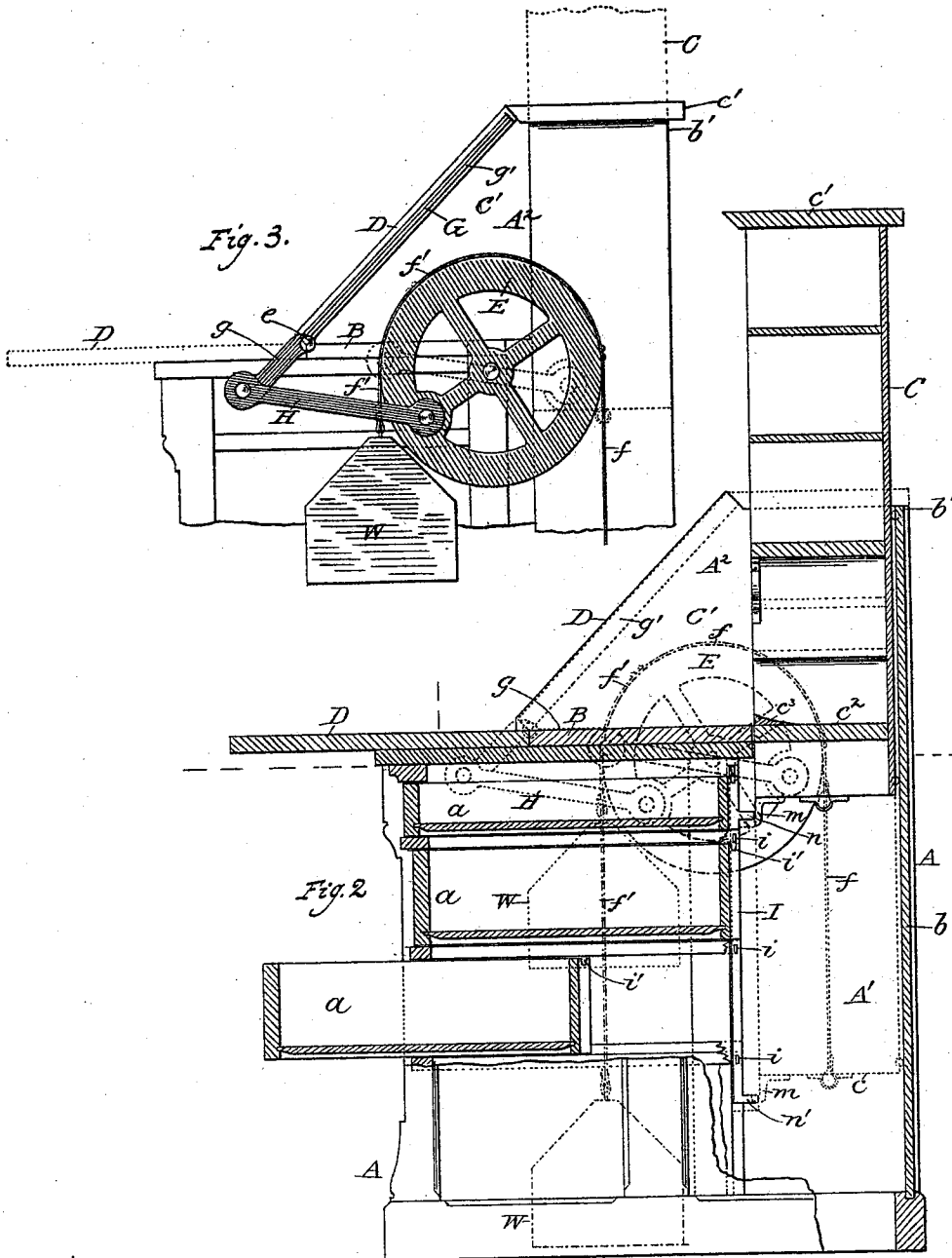
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3 Sheets—Sheet 2.

J. A. LAWSON.
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No. 498,175.

Patented May 23, 1893.



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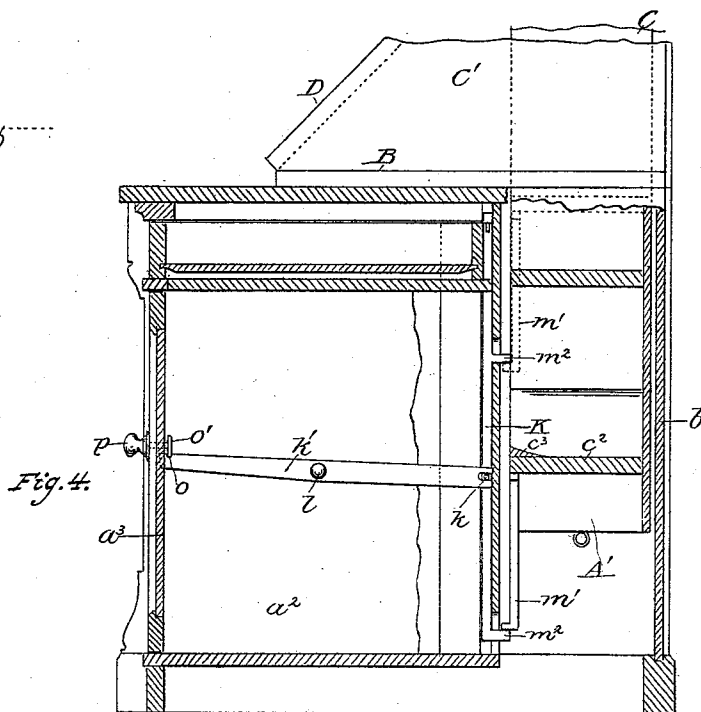
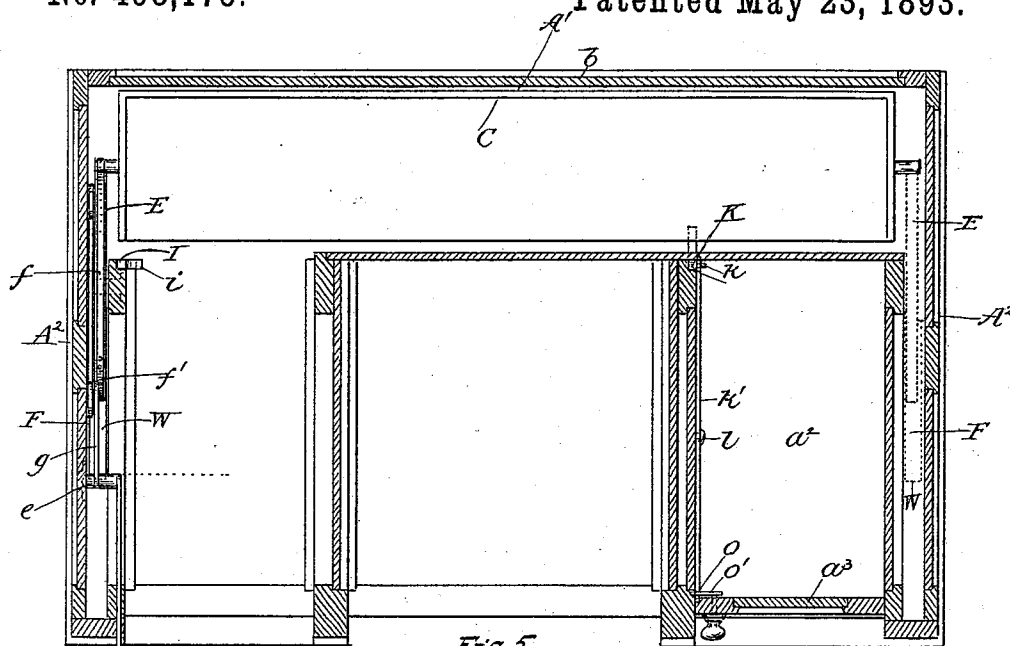
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J. A. LAWSON.
OFFICE DESK.

No. 498,175.

Patented May 23, 1893.



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UNITED STATES PATENT OFFICE.

JOSEPH ALBERT LAWSON, OF ALBANY, NEW YORK.

OFFICE-DESK.

SPECIFICATION forming part of Letters Patent No. 498,175, dated May 23, 1893.

Application filed April 11, 1891. Serial No. 388,543. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH ALBERT LAWSON, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Office-Desks; and I do hereby 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 relates to improvements in office desks and consists in the combinations of devices and parts hereinafter described and specifically set forth in the claims.

15 The objects of my invention are, first to combine with a desk body having in its rearward portion a chamber, and a case containing paper receptacles or apartments and capable of being moved at will vertically in
20 either direction, a mechanism operated by a lever for elevating and lowering said case; second, to combine with a desk body having in its rearward portion a chamber, a case of receptacles or apartments capable of being
25 moved in either direction, vertically of a panel hinged to a stationary top portion of the desk, a lever carried by said hinged panel and a lifting wheel and hoisting strap operated by said lever whereby an operator may
30 elevate the said case of receptacles at the same time the desk is being uncovered and the panel is being moved to a situation in which it serves as a writing table; third to combine with a body of a desk having a ver-
35 tically moving case of receptacles and a mechanism which may at will be operated to elevate or lower the said case, and also containing drawers which are moved independently of said case, of a locking shaft carrying
40 catches and operated by the said case of receptacles, when this latter is moved vertically, to lock and unlock the said drawers accordingly as said case is moved up or down; lastly to provide specific combinations of de-
45 vices and parts by which my improvements can be embodied in desks. I attain these objects by the means illustrated in the accompanying drawings forming a part of this specification, in which—

50 Figure 1, is a front elevation, part in section, of an office desk embodying the features

of this invention. Fig. 2 is a sectional view taken from front to rear, and illustrating the same. Fig. 3, is a view illustrating the mechanism for operating the moving parts of the desk. Fig. 4 is a sectional view illustrating the mechanism for locking a closet door and drawers and Fig. 5 is a plan view, part in section, illustrating the improvements in this invention.

The same letters of reference, refer to similar parts throughout the several views.

In the drawings A A represent the body of the desk, which body may be constructed with any of the usual forms, for containing drawers
55 a a or a' a' or closets a^2 , or both. Rearward of the drawers and closet and contained within the body of the desk is a chamber A' extending from the bottom of the same to its top horizontal stationary table or panel B. The
60 back wall b is extended preferably to a plane above the plane of top surface of the top panel B, as to b' , Figs. 1, and 2.

C is a case made independent of and separate from the body of the desk and having its form and size corresponding with that of the chamber A', receiving the same, so as to freely move vertically therein. This case is made with a vertical extension sufficient to bring
75 its top piece or cover to the top of the back wall b , as to b' . When the case is lowered to position shown by dotted lines in Figs. 1 and 2, with its bottom at dotted lines c , same figures, and the top piece c' of this case resting on the top edge b' of the back wall b , as indicated by dotted lines in Figs. 1 and 2, the top
80 piece c' of said case forms the closing top, in appearance, of the desk, and there will be produced between the planes of the said top piece c' and the stationary table or panel B and forward of the case, the chamber C' for contain-
85 ing inkstands, pen holders, and other articles of stationery, or papers or writings (for convenience, or use, or reference) without disturbance, or liability to be interfered with, when the desk is closed.

D is a panel hinged to the stationary panel B, or other stationary piece which will serve as a suitable piece for hinging said panel D in place for operating as a writing table when
90 in position of full lines in Fig. 2, and for a top closing panel for closing the chamber C'

when said panel D is turned to position of dotted lines in the same figure.

E E are lifting wheels, suitably mounted in bearings fixed with stationary parts of the body of the desk, and can both be fixed on a single long shaft extending from one end of the desk to the other, or they may be each fixed to a separate spindle, as may be preferred. These hoisting wheels are each contained within a narrow chamber, F located at the ends A² of the body of the desk, as shown in Figs. 1 and 5. These hoisting or lifting wheels have a periphery about from one half to one inch wide, more or less, and carry each a lifting strap or cord *f*, which can be made of a thin strip of steel, or flexible wire or fibrous material, yet preference is given to the use of thin strips of steel of about one half to three quarters of an inch in width, as the weight to be lifted may require. These lifting straps *f* have each an end secured to the face of its wheel E while the opposite end is secured to a suitable bracket or holding pin securely fixed to the lower end of the vertically moving case C at each end and at points in the same which will tend to balance the said case when it is being raised or lowered. These lifting wheels, when fixed on a single and continuous shaft, extending from one end of the desk to the other can be operated simultaneously by a single lever, but when they are respectively mounted on individual shafts or spindles they will each be provided with an operating lever G pivoted at *e* to the body of the desk or a piece fixed thereto. The short limbs *g* of these levers are each connected with the lifting wheel E, it is to operate, by means of a pitman H pivoted at one of its ends to the short arm *g* of lever G and at its opposite end to a wrist-pin fixed on one side of the lifting wheel as shown. These levers are arranged at near the ends of the desk and substantially opposite the wheels they operate, and can be connected together so that their long limbs *g'* *g* can be simultaneously moved in either direction and operate both lifting wheels at the same time and in like directions. This connection of the long limbs of the said lever can be effected by means of a suitable rod or bar, or they can be connected together through the means of the hinged panel D when secured to the same. This form of connection of the said levers G G, by means of the hinged panel D is preferred, as by such connection, the operator can operate the lifting wheels to elevate the case C at the same time the hinged panel D is being moved from its situation, as a top closing panel, to that of a horizontal writing table as shown by full lines in Fig. 2. When these levers G G are connected through the medium of the hinged panel D, I prefer to secure the long limbs of the said levers to said panel at lines near each end or on the ends of said panel; but when said levers are disconnected from said panel D, I prefer to have the long arms of said levers at the outer

ends of the hinged panel with the panel working between.

I is a vertically moving locking bar supported in front of the chamber C' in which the case C moves, and near one of the side pieces of the drawers *a* as illustrated by dotted lines in Fig. 1, and by full lines in Figs. 2 and 5. This locking bar I has integral with it or secured to it at intervals catching devices *i* *i* Figs. 1, 2, and 5, which are so placed as to occur at points coincident with holding notches *i'* *i'* in the rear end portion of a side wall of each drawer. These catching notches *i'* *i'* of the drawers may be reinforced by metal pieces, if preferred. This locking bar is also provided at its upper end portion with a suitable lifting finger *n* and at its lower end with a similar finger *n'*. These fingers are acted on by a suitable bracket *m* secured to the lower end of the case C and near the vertical bar I, Fig. 2. By this bracket *m* carried by the case C, the vertical locking bar I will be lifted to a distance sufficient to raise the catching devices *i* *i* out from the catching notches *i'* *i'* in the drawers *a*, so that the latter will be unlocked and be free to be drawn out at will: when the case C is lowered the bracket *m* will be carried down from the lifting finger *n*, by which the locking bar is raised, when said bar will drop down and carry the catching devices *i* down into engagement with the notches *i'* in the drawers, when the latter are in place back in the desk, to their full distance. K is a similar locking bar also supported in front of the case C and at the rear side wall of the closet *a*² as shown in Figs. 1, 4 and 5. Integral or connected with this locking bar is a pin *k* which works in a slot made in the rear end of the lever catch *k'* pivoted to a side wall of the closet *a*², as at *l*. The forward end of said catch lever is provided with a suitable catching device *o* for engagement with a co-acting catching device *o'* secured to the door *a*³ of the said closet. Secured to the lower end of case C and near the locking bar K is bracket *m'* which, when lifting on the lifting finger *m*² on said bar, will operate to so move the lever catch as to disengage its catch end from the catching device *o'* secured to the closet door; while when the case is lowered this bracket will allow bar K to drop and operate the lever catch in a reverse direction and throw its catching end into engagement with the catching device connected with the door and hold it locked shut. The closet door *a*³ may be provided with a turn button operated by a handle *p* for holding the door closed.

By the above described locking bars provided with their respective catching devices and fingers, and the co-acting brackets *m* *m'* secured to the case C the drawers and closet door will be securely locked in place when the case is down within the chamber C' of the desk; while when the case is in a raised condition the vertical locking bars will be held in a raised situation, so that the drawers and

closet door in the body of the desk will be unlocked and in condition to be freely opened and closed at will.

When the levers G G are connected together through the medium of the hinged panel D so as to be moved with the same, a single lock, provided with a key, will only be required for securing all the doors and drawers in the desk from being opened; and by simply turning the panel D from an inclined position as a cover to the chamber A' of the desk to a horizontal position for use as a writing table, the case of receptacles will be raised into situation for affording access to any of the receptacles, or drawers in said case, while the drawers in the body of the desk, and the closet doors will be unlocked and free to be opened and closed at will.

The lower shelf c^2 of the case, when it is in an elevated situation will be about on a plane with the stationary panel B forming the floor of chamber A' of the desk; and to prevent articles in said chamber from resting partly on said panel B and partly on the shelf c^2 of the case, an upwardly projected piece c^3 is secured to shelf c^2 , or to the rear side edge of panel B, to act as a guard piece to prevent articles from lying partly on both said panel and shelf.

In some cases a suitable catching device may be necessary between the levers G G, and the body of the desk to hold said levers in position of dotted lines in Fig. 3, so as to hold the case C in an elevated position, and any suitable hook, catch or button calculated to hold the said levers, or both the hinged panel D and said levers in a horizontal position may be employed; yet in most cases, the weight of the hinged panel D, when connected with said levers, will operate to hold the short arm of said levers in position to receive from the pitman H, an endwise push, as the suspended weight on the lifting wheel is exerting its force of gravity on said wheel, and tends to hold the hinged panel and its attached levers in a horizontal position until said levers or levers and panel are turned upwardly.

In some cases, as when case C is very large or heavy, or may be weighted heavily with papers, &c., I provide within the chambers in which the lifting wheels E E work, counterbalancing weights W W, one in each chamber and respectively connected with the periphery of its lifting wheel, by means of a strap or cord, and preferably by means of suitable lengths of continuation f' of the strap or cord f or their known equivalent flexible connection, above described as being used between the case C and the wheels E E. These weights can be made of any suitable heavy substance as wire, or lead, or be made to consist of a sheet metal case filled with any suitable heavy substance to any extent required by the weight of case C and its contents, for aiding an operator to operate the said lifting wheels by the levers G G or the hinged panel D, when

said levers are connected with said panel. Access may be had to the weight, in the chamber at the drawer side of the desk, by removal of the drawers opposite the same; while access may be had to the weight on the closet side of the desk, by means of a suitable opening made in the side of the closet adjoining the weight, which opening can be readily closed by a suitable removable panel applied and held thereto.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a desk body, a case of receptacles contained within a chamber in the rear portion of said desk body, of a pair of levers pivoted respectively at the opposite ends of said desk body to a stationary portion of the same, a pair of lifting wheels supported in chambers adjacent the end walls of said body, pitmen connecting the short arms of the respective levers to the respective wheels they operate with, and the flexible lifting devices described connecting said wheels with the lower end portion of said case at points about opposite the faces of said lifting wheels and counterbalancing weights also suspended from the said lifting wheels, substantially as and for the purposes set forth.

2. The combination with a desk body provided with a chamber in its rear portion, the stationary horizontal panel B immediately forward of said chamber, a case of receptacles provided with the horizontal shelf c^2 and capable of being moved vertically in either direction through the said chamber of the desk body and near the said panel B, of the guard piece c^3 secured to the front edge margin of the said shelf substantially as and for the purposes set forth.

3. The combination with a desk body having sliding drawers provided with the catching notches $i' i'$, of a vertically moving locking bar I provided with catching devices $i i$ and the outwardly projected fingers $n n'$ and a vertically moving case C carrying bracket m and capable of being moved at will in either direction, substantially as and for the purposes set forth.

4. The combination with a desk body, a vertically moving case C working within a chamber provided within the rear portion of the said desk body, and a closet provided in front of said chamber, of a vertically moving locking bar provided with pin k and outwardly projected fingers $n n'$, the horizontal lever catch k' pivoted to a side wall of said closet, the closet door a^3 provided with catching device o' and the bracket m carried by the said case C substantially as and for the purposes set forth.

5. The combination with a desk body having in it drawers provided each with a catching device i , a vertically moving locking bar provided with catching devices in number corresponding with the number of drawers to be locked and coacting with said catching de-

vices *i*, and also provided with the projected fingers *n* and *n'*, of case C capable of being moved vertically in either direction within a chamber in said desk body, bracket *m* secured to said case and operating said locking bar through the said fingers *n* and *n'* respectively, substantially as and for the purposes set forth.

6. The combination with a desk body, a case of receptacles loosely contained within a chamber in the rear portion of said desk body, a panel hinged to the desk body and serving when in a horizontal position as a writing table and when in an inclined position with its upper end against the case of receptacles, as a cover to the desk, of lifting wheels E E, lifting straps connecting the peripheries of said wheels with the lower end of said case, respectively at points opposite said wheels, and pitmen between said wheels and levers G G, secured or connected to said hinged panel, substantially as and for the purposes set forth.

7. The combination with a desk body having in it drawers which are provided each with a catching device *i*, a vertically moving locking bar which is provided with catching devices, corresponding with the number of drawers to be locked, and provided with projecting fingers *n* and *n'*, of the case C, capable of being moved vertically in either direction within a chamber provided in said desk body, lifting wheels E, straps *f* between said wheels and case, and bracket *m* secured to the said case and operating said locking-bar through said fingers *n* and *n'*, substantially as and for the purposes set forth.

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

JOSEPH ALBERT LAWSON.

Witnesses:

JOS. M. LAWSON,
JOHN T. COOK.