W. E. COX.

DESK.

APPLICATION FILED APR. 9, 1913.

1,117,338.

Patented Nov. 17, 1914.

2 SHEETS—SHEET 1.

Fig. 1.

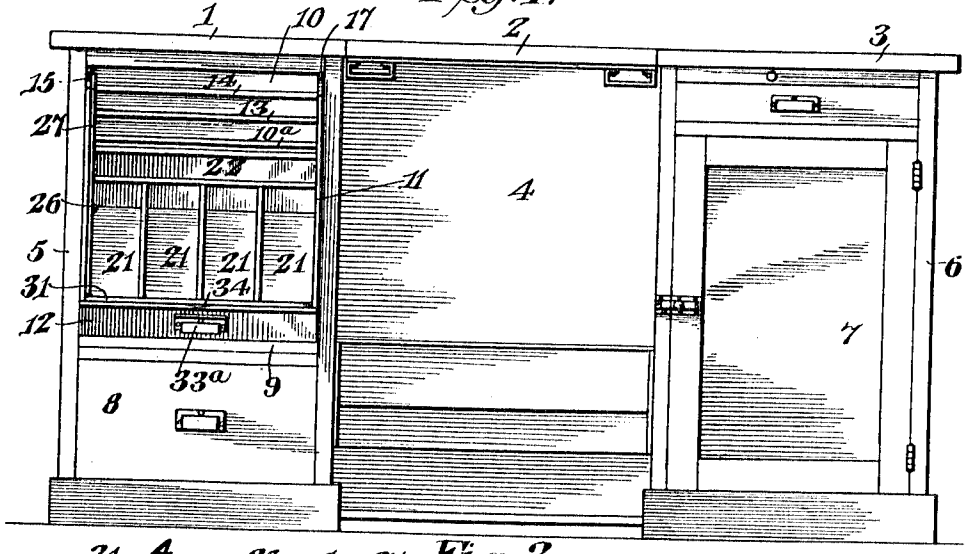


Fig. 2.

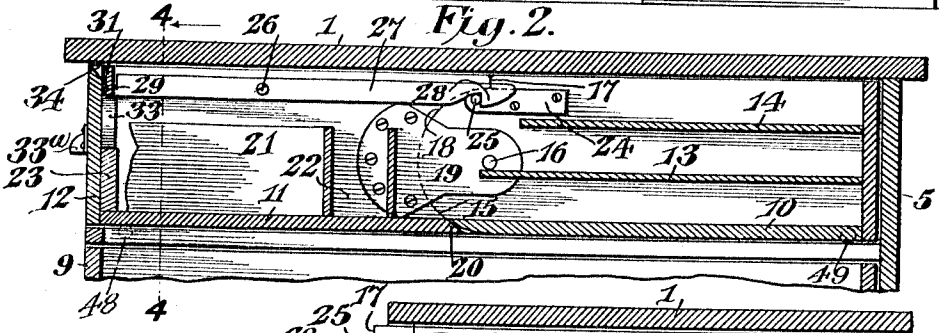


Fig. 3.

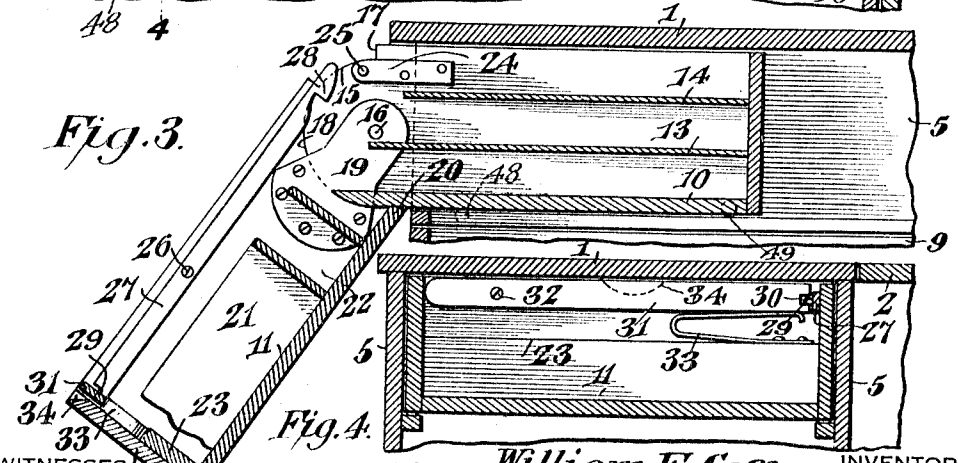


Fig. 4.

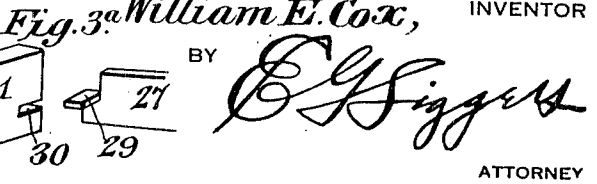


Fig. 3a.

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2 SHEETS—SHEET 2.

Fig. 5.

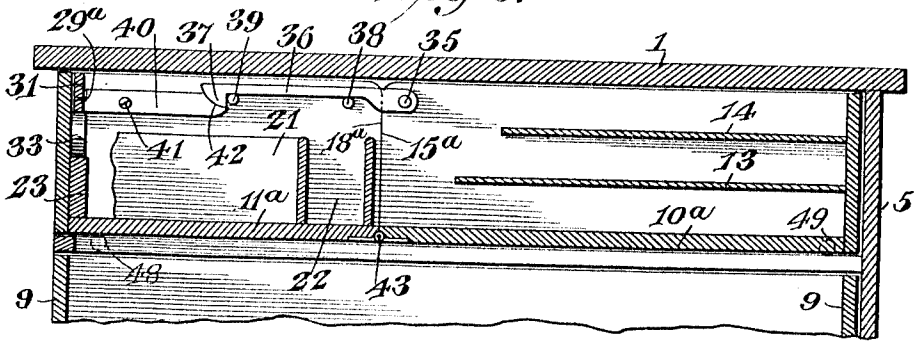


Fig. 6.

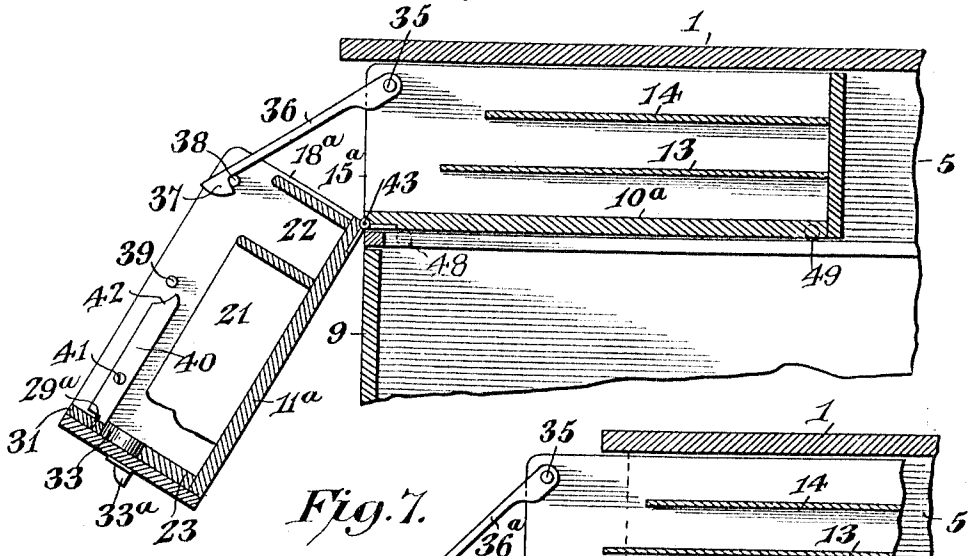
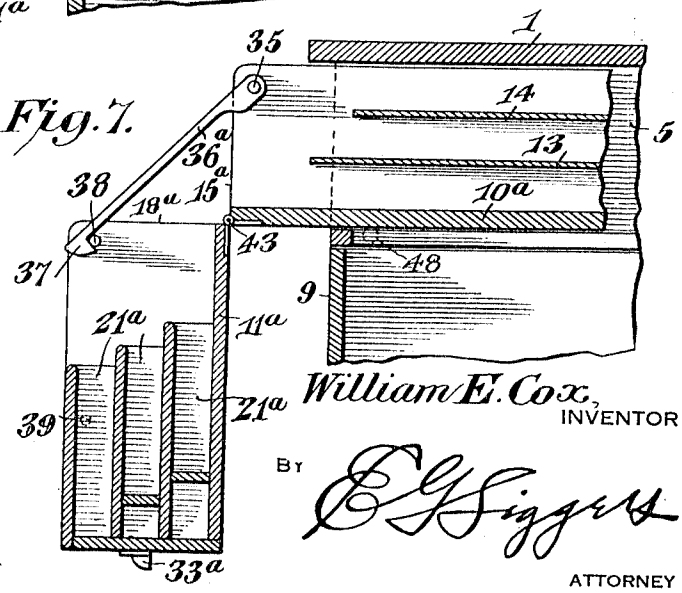


Fig. 7.



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DESK.

1,117,338. Specification of Letters Patent. Patented Nov. 17, 1914.

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To all whom it may concern:

Be it known that I, WILLIAM E. COX, a citizen of the United States, residing at Wilmington, in the county of New Hanover and State of North Carolina, have invented a new and useful Desk, of which the following is a specification.

This invention has reference to improvements in desks, and its object is to provide a structure embodying various details which makes the structure especially adapted to certain classes of work.

In accordance with the present invention there is provided a desk of the flat top variety with a center compartment designed for the reception of a typewriter which may be lowered out of sight when not in use and the continuity of the desk top established, while at the sides of the center portion are tiers of compartments and other structures which may be drawn out after the manner of ordinary drawers or pushed back out of sight for the protection of the contents, but may be made more readily accessible than drawers.

The invention will be best understood from a consideration of the following detailed description, taken in connection with the accompanying drawings forming a part of this specification, with the further understanding that while the drawings show a practical embodiment of the invention, the latter is not confined to any strict conformity with the showing of the drawings, but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention.

In the accompanying drawings:—Figure 1 is a front elevation of the improved desk with one of the drawer compartments in the open or exposed position. Fig. 2 is a longitudinal vertical section of the portion of the desk containing the drawer which is shown extended in Fig. 1, the drawing being on a larger scale than Fig. 1, and the drawer being shown in the retracted position. Fig. 3 is a section similar to that of Fig. 2 but with the drawer in the partly extended position. Fig. 3ª is a perspective view of a detail of the construction of the device of Figs. 1, 2 and 3. Fig. 4 is a section on the line 4—4 of Fig. 2. Fig. 5 is a view similar to Fig. 2 but showing a somewhat modified form of construction. Fig. 6 is a view similar to Fig. 5 but showing the parts in a different operative position. Fig. 7 is a view similar to Fig. 6 illustrating a somewhat modified form thereof.

Referring to the drawings there is shown a desk of the flat top variety having top portions 1, 2, 3, respectively, the top portion 2 forming the cover member for a receptacle 4 at the middle portion of the desk shaped to provide a leg space, and also designed to contain a typewriter which may be lowered into the compartment 4 or raised into operative position, but as the structure of this part of the desk may follow the usual practice, no detailed description thereof is deemed necessary.

The top member 1 forms the cover for a column 5 and the top member 3 forms the cover for a column 6, these two columns 5 and 6 being on opposite sides of the knee space of the desk and are similar in general construction to the drawer columns usually provided in desks of the general character to which this invention relates. It is customary in ordinary desks to provide drawers in one or both columns and sometimes to provide one of the two columns with interior spaces designed to contain ledgers or other similar large books, in which case a door 7 is provided as a closure therefor. The column 5 may be provided with a bottom drawer 8 which need not differ from ordinary desk drawers and may be utilized for any purpose for which a drawer is adapted. Above the drawer 8 the column 5 contains another drawer 9 which for convenience may be supplied with any suitable means for storage, such as file boxes or the like, but as file boxes are common structures it is not deemed necessary to illustrate them. At the upper end of the column 5 there is provided a drawer 10 having a rear portion of less length than the depth of the desk and a front portion 11 completing the length of the drawer which when closed in has a front portion 12 flush with the other drawers. The rear or body portion of the drawer 10 is provided with shelves 13, 14 which may have their front edges in retreating order, so as to form compartments of progressively less length from the bottom of the drawer upwardly. Both of the side members of the body portion of the drawer 10 have the front ends rounded outwardly as indicated at 15 on an axis having a pin 16 at the center, this axis being more distant from the top of the drawer 10 than

from the bottom thereof, and where the top of the curved portion 15 meets the body portion of the respective side of the drawer there is formed an upright shoulder 17.

The front section 11 of the drawer has the side members concaved, as indicated at 18, in conformity with the rounded out or convex edges 15 and each side member of the front section 11 has fast thereto a plate 19 through which the pivot pin 16 extends, so that the front section 11 may be turned with respect to the main portion of the drawer 10 about the pins 16 as a hinge axis, the curved portions 15 and 18 matching and remaining in engagement, while the eccentricity of the axis of the pins 16 with respect to the horizontal center line of the drawer causes the bottom of the front section 11 at its rear edge 20 to move on an arc first away from the bottom of the main section 10 and then into engagement with the under face thereof which acts as an abutment for the front section to hold it firmly in position at a downward inclination when the drawer is withdrawn sufficiently from the desk to permit the turning of the front section 11 into the semi-pendent position illustrated in Fig. 3. The front section 11 is formed with compartments 21 which may extend lengthwise of the drawer and another compartment 22 which may extend crosswise of the drawer, thus accommodating various papers, but the particular arrangement of these compartments is not obligatory and other arrangements may be provided, some of the arrangements being described herein with respect to Figs. 5, 6 and 7.

At the front of the draw section 11, but behind the front 12 of the drawer section is a transversely arranged strip 23 which will prevent any papers in the compartments 21 from approaching so closely to the front 12 as to interfere with certain parts to be described.

Fast to one side member of the rear section of the drawer 10 near the top thereof is a strip 24 carrying at the front end a pin 25, the strip 24 being preferably of metal for purposes of strength. Pivoted to the corresponding side member of the front section 11 by a pivot pin or screw 26 is a lever 27 having the rear end formed into a latch tooth 28. This lever is of a length to extend approximately the length of the front section 11 and when the section 11 and the main portion of the drawer 10 are in alinement the tooth 28 will engage over the pin 25, thereby holding the drawer sections in the alined position against liability of collapse. The front end of the lever 27 is cut and bent to form a laterally projecting tongue 29 in position to enter a longitudinally disposed notch 30 in one end of a bar 31 extending across the inner face of the front 12 of the section 11 and pivotally held thereto by a pin or screw 32. The lever 31 has its notched end urged constantly upward by a spring 33 either in the form of a U-shaped leaf spring, as indicated in Fig. 4, or any other character of spring which may answer the purpose may be used. The front 12 is provided with a handle member 33^a and above the handle member has its upper edge notched, as indicated at 34, so that assuming the drawer to be closed and it is desirable to pull out the drawer, the operator may slip the fingers into the handle 33^a and the thumb of the same hand into the notch 34 when it will readily engage the lever 31 pressing the notched end of the lever downwardly against the action of the spring 33, and this will cause a corresponding depression of the finger end of the lever 27 and a rising movement of the tooth 28, and if the parts be a little loose so that the front end of the drawer may be lifted but a small fractional portion of an inch, the tooth 28 is released from firm engagement with the pin 25 and the movement of the parts under the action of the thumb of the operator is facilitated. The latch may be lifted at any time that the thumb can engage the lever 31, and when the forward portion of the drawer has been fully extended with the rear portion of the drawer still housed in the desk, such forward portion may be allowed to drop, having been unlatched from the main portion, and this dropping movement will continue until the rear edge 20 of the bottom of the forward portion 11 is in abutment with the under surface of the bottom of the rear portion of the drawer 10. Now all the papers which may be within the compartments 21 and 22 and papers or other articles in the rear of the drawer are readily accessible, and by preference the drawer 10 is located at the left hand side of the desk, so that papers in the form of letters and the like, or envelops or other such light articles may be readily handled by the left hand of the user of the desk who may at the time be utilizing the typewriter. When access is desired to the drawer 9 it is necessary to lift and latch the front portion 11 of the drawer 10 and it may be necessary to push this drawer into the desk, but these operations may be performed with the greatest facility, so as to necessitate but little exertion on the part of the user.

In Fig. 5 there is shown a drawer 10^a which may have its rear section in the main similar to the drawer 10 of the preceding figures, except that the front edge 15^a is cut off straight or perpendicular to the bottom of the rear draw section and there is provided a front portion 11^a having the rear edge of the sides cut off straight, as at 18^a. The rear section of the drawer 10^a and the

front section 11ª thereof may have the partitions arranged the same as in the preceding figures and hence require no particular description and other parts which are substantially identical in the two forms are designated by the same reference numerals.

Secured to the front portion of one side of the main part of the drawer 10ª by a pivot 35 is one end of a latch bar 36 having the other end formed into a tooth 37. On the corresponding side of the front member 11ª are two pins 38, 39, respectively, the pin 38 serving as a stop pin for the latch bar 36, and the pin 39 serving as a latch pin for the latch bar 36 and so related to the toothed end 37 of the latch bar 36 that when the bottoms of the two parts 10ª are in alinement the toothed end 37 will engage over the pin 39 and so hold the two parts of the drawer in such alined positions. Pivoted to the side of the front member 11ª carrying the pins 38 and 39 is a lever 40 held to the side of the drawer section by a pivot pin or screw 41 and what may be termed the rear end of the lever 40 is rounded as indicated at 42 to engage the toothed or latch end 37 of the lever 36, which latch end is correspondingly rounded, although these particular shapes are not obligatory. The end 11ª of the drawer is provided with a bar 31 held by a spring 33 and shaped to engage the corresponding end of the lever 40 which is provided with a tooth 29ª engaging the lever 31 the same as in the structure of Fig. 1 and associated figures. When the drawer 10ª is drawn outwardly, the lever 31 is manipulated as before described, thus rocking the lever 40 which in turn lifts the latch end of the lever 36, so as to disengage it from the pin 39, whereupon the section 11ª may be turned about the hinge connections 43 with the main portion of the drawer until the latch end 37 of the lever 36 engages the pin 38, thus holding the drawer section 11ª in a downwardly inclined position similarly to the position assumed by the drawer section 11 in the structure of Fig. 1 and associated figures.

The structure of Fig. 7 differs from that of Figs. 5 and 6 in that there is a latch bar 36ª somewhat longer than the latch bar 36 of the other figures and the pin 39 is suitably situated with respect to the pin 38 to cause the rear portion of the drawer 10ª and the front portion 11ª thereof to be held in alinement, or when opened and the latch end 37 of the latch bar 36ª is in engagement with the pin 38 the member 11ª will hang pendently. In Figs. 1 to 6 the compartments 21 open toward the top of the drawer when the drawer section 11ª is in alinement with the main portion of the drawer, but in the structure shown in Fig. 7 there are compartments 21ª so arranged as to open at the rear ends, so that when the member 11ª is pendent, these compartments 21ª are upright. In other respects the structure of Fig. 7 agrees with the structure of Figs. 5 and 6.

What is claimed is:—

1. In a desk, a drawer formed of two parts each of a length to constitute a receptacle and each provided with means for retaining articles while the drawer is horizontal with the front part having its article retaining means constructed to retain articles while said part is pendent, the two parts being hinged together at their meeting ends for movement of the front part about a substantially horizontal axis, and coacting locking means carried by the two parts of the drawer for holding them in alinement and provided with manipulating means accessible from the front portion of the drawer.

2. In a desk, a drawer divided intermediate of its length into two sections and there hinged together and provided with coacting latch members for holding the drawer sections in substantial alinement when the latch members are engaged, the front section of the drawer having means for operating the latch members accessible at the front end of the drawer.

3. In a desk, a drawer composed of front and rear sections hinged together at their meeting ends, and said drawer sections being provided with coacting parts within the confines of the drawer for holding the drawer sections in alinement in either the extended or closed positions of the drawer and for holding the front section in a declining position when the front section is withdrawn from the desk.

4. In a desk, a drawer divided intermediate of its length into front and rear parts each provided with means for retaining articles and said parts being hinged together at their meeting ends, the front part being movable about the hinge from a substantially horizontal position of alinement with the rear part to a pendent position, and the drawer having means for holding the parts in alinement and means for sustaining the front part in a declining position.

5. In a desk, a drawer formed of two sections hinged together intermediately of the length of the completed drawer, and a latch mechanism comprising coacting latch members on the two sections of the drawer, and a manipulating member for one of the latch members located at the front of the drawer, and said drawer being provided at the front with a handle and being also cut away or notched adjacent the latch operating member at the front of the drawer.

6. In a desk, a drawer composed of two members hinged together intermediately with the axis of the hinge between the top and bottom of the drawer and nearer the

bottom than the top, and a latch mechanism for holding the drawer sections in substantial alinement and including a lever pivoted to the front section of the drawer and terminating at the front end in a lip or tongue projecting in a direction lateral to the length of the lever, another lever pivoted to the front of the drawer provided with a notch or recess for receiving the tongue of the first-named lever, and a spring for holding the second named lever in an elevated position.

7. In a desk, a drawer composed of two members hinged together intermediately with the axis of the hinge between the top and bottom of the drawer and nearer the bottom than the top, and a latch mechanism for holding the drawer sections in substantial alinement and including a lever pivoted to the front section of the drawer and terminating at the front end in a lip or tongue projecting in a direction lateral to the length of the lever, another lever pivoted to the front of the drawer provided with a notch or recess for receiving the tongue of the first-named lever, and a spring for holding the second named lever in an elevated position, the drawer being provided with a notch at the front and a handle also located at the front and related to the notch to permit engagement of the handle by the fingers of the hand of the operator with the thumb entering the notch into engagement with the second-named lever.

8. A desk provided with a drawer having two parts hinged together intermediately of the length of the drawer for movement of the forward part about a substantially horizontal axis with reference to the rear part, the forward part being provided with compartment-forming partitions substantially perpendicular to the bottom of said part and the rear part being provided with compartment-forming partitions substantially parallel with the bottom of said rear part, and coacting means on the two parts of the drawer for holding them in alinement in either the withdrawn or closed position and releasable one from the other for the movement of the front part of the drawer on its hinge connection with the other part into a declining position when the drawer is withdrawn from the desk to wholly expose the front part.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM EDWARD COX.

Witnesses:
GRANT B. MERTS,
ALMERIA SWANN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."