No. 727,126. PATENTED MAY 5, 1903.

J. GRAMELSPACHER.

COMBINED DESK AND TYPE WRITER CABINET.

APPLICATION FILED MAY 19, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

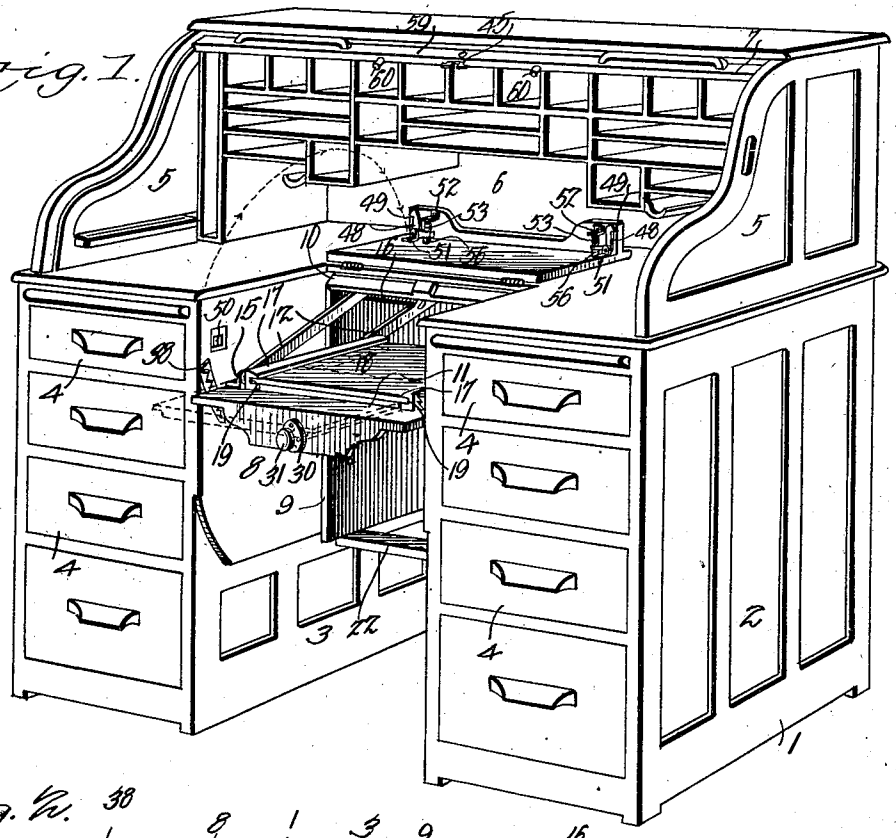
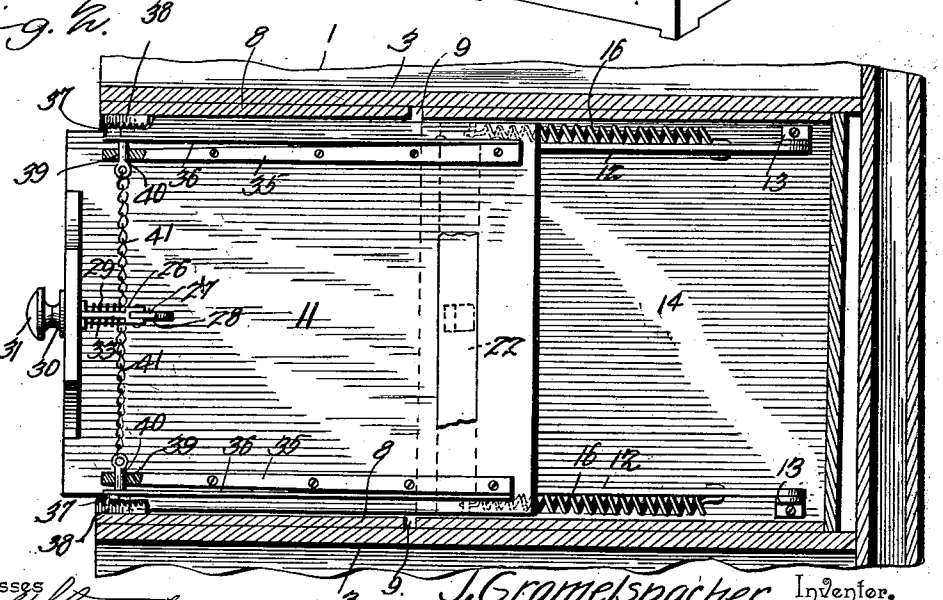


Fig. 2.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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NO MODEL. 2 SHEETS—SHEET 2.

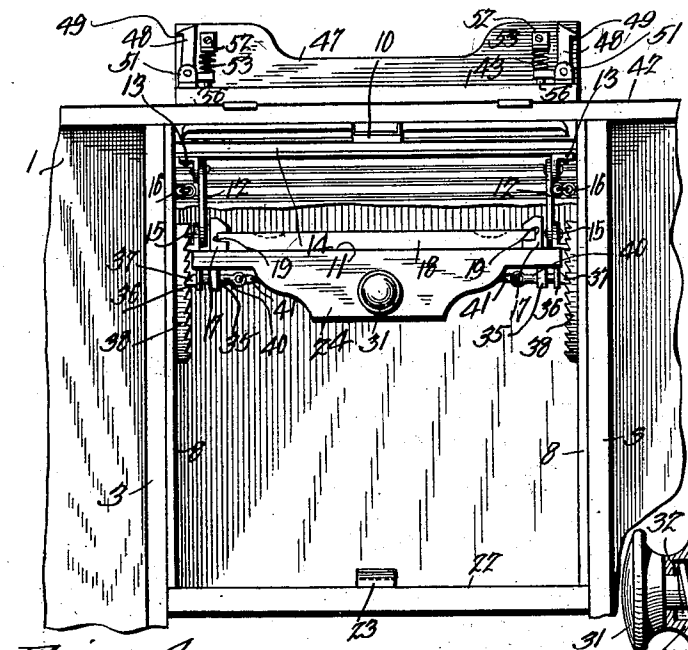


Fig. 4.

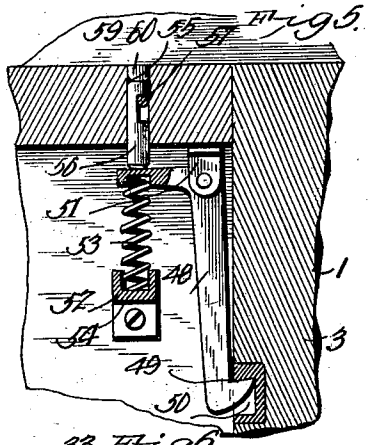


Fig. 5.

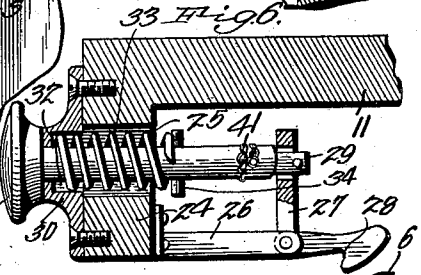


Fig. 6.

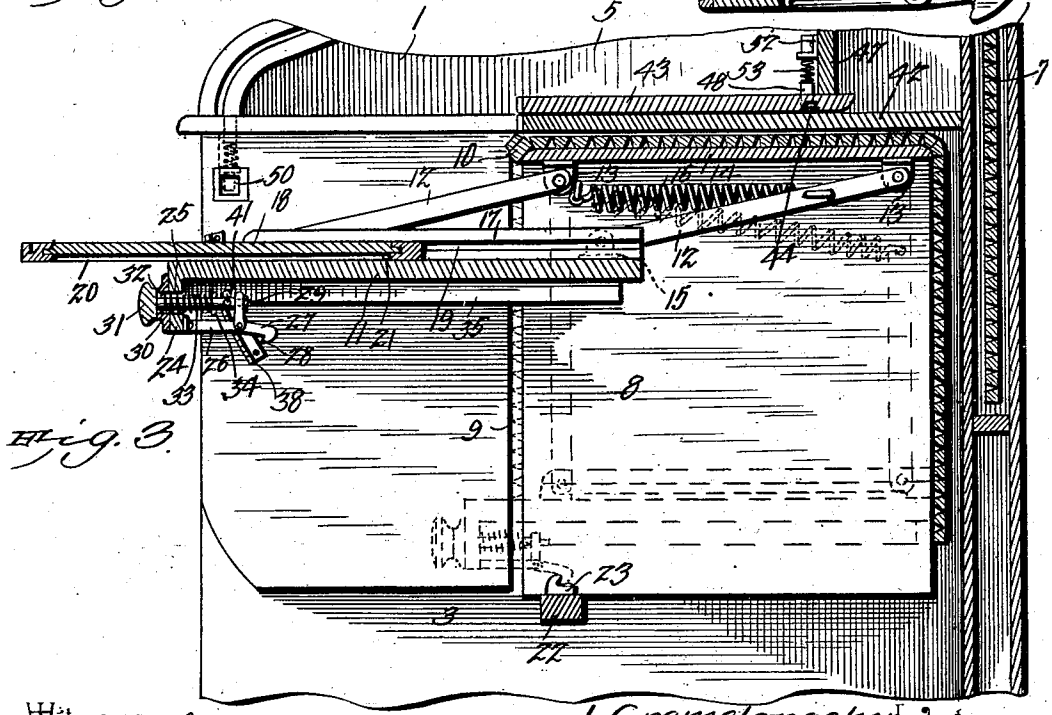


Fig. 3.

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No. 727,126. Patented May 5, 1903.

UNITED STATES PATENT OFFICE.

JOHN GRAMELSPACHER, OF JASPER, INDIANA.

COMBINED DESK AND TYPE-WRITER CABINET.

SPECIFICATION forming part of Letters Patent No. 727,126, dated May 5, 1903.

Application filed May 19, 1902. Serial No. 108,030. (No model.)

To all whom it may concern:

Be it known that I, JOHN GRAMELSPACHER, a citizen of the United States, residing at Jasper, in the county of Dubois and State of Indiana, have invented a new and useful Combined Desk and Type-Writer Cabinet, of which the following is a specification.

This invention relates to combined desks and type-writer cabinets; and the object of the invention is to produce an article of office furniture of this class which shall be simple in construction and not liable to get out of working order, in which the type-writer when not in use shall be held in a position where it will not obstruct the use of the desk for ordinary writing purposes; to provide an improved and simple mechanism for holding the type-writer table at any desired elevation while in use and to provide for its convenient release when not in use, so that it may be restored to the cabinet provided for its reception; to provide an improved construction of a combined means for operating the lock whereby the type-writer table is retained in position when not in use and the mechanism whereby the said table is supported while in use, and to provide an improved means for locking the folding part of the flat top of the desk in position when used in conjunction with a roller top or curtain.

With these and other objects in view my invention consists in the improved construction, arrangement, and combination of working parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view showing a roller-top desk equipped with my improved type-writer cabinet, the type-writer table being shown elevated into position for use. Fig. 2 is a bottom plan view showing the type-writer cabinet and adjacent parts of the desk, the type-writer table being shown in the position which it occupies when elevated for use. Fig. 3 is a vertical sectional view taken longitudinally through the type-writer cabinet and showing the table elevated, adjacent parts of the desk having also been shown. Fig. 4 is a front view of the device as seen in Fig. 3. Fig. 5 is a detailed view partly in section, showing the auxiliary locking device for locking the desk-flap when the roller-curtain of the desk to which the device is applied is lowered. Fig. 6 is an enlarged sectional view showing the device for locking the type-writer table in its lowered position.

Corresponding parts of the several figures are indicated by like characters of reference.

1 designates the desk-frame, which may be of any suitable well-known construction. In the drawings an ordinary roll-top desk has been shown, comprising the outer sides 2 2 and the inner sides 3 3, said outer and inner sides forming receptacles or drawers 4. The top is composed of sides 5 and back 6 and is provided with the roller-curtain 7, all of which are of ordinary construction.

My improved type-writer cabinet is located between the inner desk sides 3 3, to which the side pieces 8 8 of said cabinet are suitably secured. It will be understood, however, that these side pieces might be omitted and the inner desk sides 3 3 made to constitute the sides of the cabinet, in which event the said sides 3 3 would receive the construction which will be hereinafter attributed to the side pieces 8 8. The latter are provided with grooves 9 to receive the roller-curtain 10, which is used as protection for the type-writer when the latter is placed in the cabinet and which forms practically a dust-proof cover for the same. The bottom of the cabinet proper is formed by the swinging table 11, which is supported at each end by a pair of links 12, the upper ends of which are connected pivotally with lugs or ears 13 upon the under side of the top 14 of the cabinet, which is arranged a short distance below the desk-top proper, and the lower ends of which have pivotal connection with similar ears or lugs 15, secured upon the upper side of the table 11. The rearmost pair of links 12 are connected by means of stout springs 16 with the sides of the cabinet near the front edges of the same, the said springs serving in part to support the weight of the table and the machine which is in practice to be placed thereon, so as to assist in lifting the weight thereof when being raised to an operative position and likewise to restrain its fall when being lowered out of the way.

The table proper, 11, is provided on its up-

per side with a pair of parallel cleats 17, arranged at right angles to the front edge of the table and serving as guides for an auxiliary table 18, which is arranged slidingly between said cleats, the latter being provided with grooves 19 for the reception of the edges of said auxiliary table. The latter is provided on its under side with a recess 20 to receive a pair of pins or stops 21, which are suitably secured to and extended upwardly from the upper side of the table 11. The auxiliary table 18, upon which the type-writer is actually supported, is thus permitted to have a longitudinally-sliding movement with relation to the table proper, 11, enabling it to be drawn forward to the position shown in Fig. 3 of the drawings, where it may be more conveniently reached by the operator.

Suitably secured between the desk sides 3 3 is a cross-bar or brace 22, which is provided with a suitably-located beveled lip or catch 23, adapted to be engaged by the locking mechanism of the table 11 when the latter is lowered out of the way, as shown in dotted lines in Fig. 3 of the drawings. The said table 11 is provided at its front edge with a downwardly-extending strip 24, having a perforation 25, below which an arm or bracket 26 is suitably secured to said strip. At the free end of the arm 26 is pivotally mounted a bell-crank lever 27, the horizontal arm of which has a beveled lip or catch 28, adapted to engage with the catch 23 upon the cross-bar 22 to lock or retain the type-writer table in its lowered position. The vertical arm of the bell-crank lever 27 is perforated for the reception of the end of a swiveled stem 29, which extends through the perforation 25 in strip 24, through a corresponding opening or perforation in a plate 30, which is suitably secured upon the front side of the strip 24, and it has at its outer end a knob or handle 31, by means of which it may be manipulated. The plate 30 is provided in its inner side with a recess or socket 32 to receive one end of a coiled spring 33, which latter is wound upon the stem 29 and has its opposite end abutted against the cross-pin 34 in the said stem, which by the action of the said spring is forced in an inward direction, thus operating the bell-crank lever 27 to cause the catch 28 of the latter to engage the catch 22 when the table 11 is brought to the lowered position shown in Fig. 3. To release the catch, it is only necessary to pull the stem 29 in a forward direction, which may be done by simply grasping the knob or handle 31, and it will be seen that the same action which releases the locking device when continued will serve to lift or elevate the table. The perforation 25 in the strip 24 is obviously to be made sufficiently large to freely accommodate the spring 33, and the stem 29 may therefore be described as having its bearings in the vertical arm of the bell-crank lever 27 and in the plate or escutcheon 30.

For the purpose of holding the type-writer table in an elevated position for operation and to provide for its adjustment at any desired elevation to suit the operator the following mechanism is provided.

Upon the under side of the table 11 at a short distance from each end is secured a wedge-shaped or forwardly-beveled cleat 35, which cleats are made of a length to extend nearly from the rear to the front edges of said table. Suitably secured upon the outer sides of said cleats or wedges are a pair of springs 36, the front ends of which are provided with teeth 37, adapted to engage with the segmental ratchets 38, one of which is secured upon the inner side of each of the side walls of the cabinet. The cleats 35 are provided near their front edges with horizontal perforations 39 for the passage of the bolts 40, which are secured to and extended laterally from the springs 36. By this construction when the type-writer table is raised to its operative position and the teeth 37 engage the ratchets 38 undue strain upon said springs will be avoided, such strain being taken up by the bolts 40, resting in the perforations 39 in cleats 35. The inner ends of the bolts 40 are connected, by means of chains or cords 41, with the stem 29 of the locking device, which has already been described. The said stem being swiveled or arranged to rotate in its bearings, it will be seen that by imparting to it a rotary motion by means of a handle 31 the chains or cords 41 will be partly wound upon the said stem or spindle, thus causing the springs 36 to be strained until the teeth 37 at the free ends of said springs are withdrawn from engagement with the ratchets 38, when the table carrying the type-writer may be lowered. When the table is raised, the teeth 37 and springs 36 together constitute spring-pawls, which automatically engage the segmental ratchet 38. It will be understood that the latter may be made of any desirable length and provided with any desired number of teeth to permit the type-writer table to be supported at any desired point of elevation.

The flat top 42 of the desk proper is provided with a hinged front piece or flap 43, which when closed covers the type-writer cabinet out of sight and which itself constitutes a portion of the said flat table-top, which is used for ordinary writing purposes. This flap 43 is provided near its front edge with a recess or socket 44, adapted to be engaged by the lock 45, with which the roller-curtain 7 of the desk-top is in practice provided. Such locking device, however, is no part of this present invention; but it will be understood that when this roller-curtain is used and locked an additional locking device is necessitated to keep in place the hinged flap 43 of the desk-top, inasmuch as without such additional locking device it would be possible to open the roller-curtain by permitting the said flap to swing upon its hinges, thus enabling an unauthorized person to gain access to the

desk. I have therefore provided an automatic locking device, which is necessary to the successful operation of this invention and which I shall now proceed to describe.

The hinged flap 43 of the desk-top is provided at or near its front edge with a depending transverse strip 47, in rear of which and closely adjacent to the edges of the folding flap 43 are pivoted bell-crank levers 48, the vertical arms of which are provided at their lower ends with beveled catches 49, adapted to engage recesses or sockets 50, which are formed for their reception in the inner sides of the side walls of the cabinet. These bell-crank levers may be pivoted directly to the rear side of the strip 47, or they may, as shown in the drawings, be mounted in lugs or ears 51, suitably secured to the under side of the folding desk-flap 43. Upon the rear side of the strip 47 are secured brackets 52, between which and the horizontal arms of the bell-crank levers 48 springs 53 are interposed to force the said horizontal arms in an upward direction, thus throwing the catches at the lower ends of the vertical arms of said bell-crank levers normally out of engagement with the recesses or sockets 50. The brackets 52 are preferably socketed for the reception of the lower ends of the springs 53, as has been indicated in the detail view, Fig. 8 of the drawings, at 54, thus preventing said springs from being accidentally displaced. The desk-flap 43 is provided directly above the free ends of the horizontal arms or levers 48 with vertical perforations 55, in which are seated cylindrical slides 56, impinging upon the free ends of the horizontal arms of said levers. The said slides 56 are made of such a length that their upper ends shall normally be flush with the top of the desk-flap 43. Suitable means, such as transverse pins 57, engaging recesses 58 in the sides of the slides 56, may be employed to retain the latter in position in the perforations 55 and to prevent them from dropping out when the desk-flap 43 is being thrown open.

The bottom cleat 59 of the roller-curtain 46 of the desk-top is provided on its under side with downwardly-projecting pins or dowels 60, which are so arranged as to register with the slides 56. When the roller-curtain is lowered for the purpose of closing the desk, the said pins 60 will impinge upon the upper ends of the slides 56, forcing the latter downwardly and causing them in turn to operate the bell-crank levers 48 against the tension of the springs 53, thus throwing the catches 49 at the lower ends of the vertical arms of said bell-crank levers into engagement with their recesses or sockets 50. At the same time the ordinary desk-lock with which the roller-curtain is provided comes into engagement with its mortise or socket in the upper side and near the edge of the folding flap 43. The latter being now held securely by means of the catches 49 of the levers 48 engaging the sockets 50, the desk will be securely locked. When the desk-lock proper is opened and the roller-curtain 46 is raised, thereby withdrawing the pins or dowels 60 from engagement with the pins or slides 56, the latter will be moved in an upward direction by the spring-actuated horizontal arms of the bell-crank levers 48.

One of the important advantages resulting from my improved construction is the ability of the type-writer operator to adjust the table in operative position at various elevations. In type-writer cabinets as ordinarily constructed the table may be raised to and supported at a single predetermined elevation only. It has therefore been necessary for the operator in a great many cases to adjust his or her seat to the proper height in order to be able to operate the type-writer conveniently and with the best results. I am of course aware that vertically-adjustable supports have been heretofore made and used; but I am not aware that a link-supported table forming the bottom of a cabinet when the latter is closed has been heretofore made in such a manner as to be capable of vertical adjustment in its operative position. Another and not unimportant advantage is the equipment of the table with an auxiliary table or slide which may be drawn forward, as shown in Fig. 3, thus enabling the operator to adjust the type-writer in the most convenient and comfortable position. The desk-room is usually so fully occupied that when a type-writer cabinet is added to the desk the position of the operator is frequently uncomfortably cramped. This auxiliary table or slide enables the operator to move the type-writer forward or outward, so that ample room for the limbs will be had under the table.

It will be seen from the foregoing that my invention provides a type-writer cabinet which is capable of being applied to almost any desk of ordinary construction, whether it be provided with a roller-top or with the ordinary flat top only. It is obvious that in the latter case the auxiliary locking device is dispensed with. I would also have it understood that I consider myself to be entitled to any modifications in the construction and arrangement of parts which may be resorted to without departing from the spirit of my invention. Thus, for instance, the side walls of the type-writing cabinet need not be attached to the desk-walls 3 3, but may be located at a distance from the same, which may be found desirable when the latter are located at a considerable distance apart.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a device of the class specified, a cabinet having side walls, keepers carried by said side walls, an adjustable table adapted to support a type-writing machine, links for guiding the movement of said table, and locking-bolts disposed at opposite sides of the table at points near the front edge of the latter and

adapted to engage said keepers, to thereby form a rigid support for the front portion of the table.

2. In a device of the class specified, a cabinet having side walls, segmental ratchets mounted upon said walls, a link-supported table forming the bottom of the cabinet when lowered and adapted for the support of a type-writing machine, and spring-actuated pawls carried by said table at a point near the front of the table and adapted to engage said ratchets to thereby afford a rigid support for the table and the weight of the type-writing machine.

3. In a combined desk and type-writer cabinet, a bottom portion forming a table adapted to support a type-writing machine and adjustable to lowered and raised positions, a plurality of locking devices for holding the table in either adjusted position, and a single lock-operating means carried by the table for manipulating the plurality of locking devices.

4. In a device of the class specified, a cabinet having an adjustable bottom portion forming a table adapted to support a type-writing machine, means for locking said table in lowered position, means for locking said table in elevated position, and a single actuating device carried by said table and operatively connected to all of said locking means.

5. The combination with a link-supported type-writer table forming when lowered the bottom of a cabinet, of means for locking the said table in position when lowered, means for adjustably supporting said table when raised to operative position, a slidable and rotatable stem, means for releasing the locking mechanism by pulling said stem and means for releasing the supporting mechanism by rotating said stem.

6. In a combined desk and type-writer cabinet, the combination of the sides, the top, the table supported by links from the under side of said top and having a depending front strip, a bell-crank lever or catch connected pivotally with a bracket upon the rear side of said strip, a cross-bar connecting the sides of the desk or cabinet and having a lip adapted to engage the catch upon said bell-crank, and means for operating the latter, substantially as set forth.

7. The combination with the table or support mounted upon links and having a depending strip near its front edge, of a bracket upon the rear side of said strip, a bell-crank lever pivoted to said bracket, a sliding stem having one end swiveled in the horizontal arm of said bell-crank, a plate or escutcheon secured upon the front side of said depending strip and affording a bearing for the other end of the sliding, swiveled stem, and a coiled spring encircling the latter, having a seat in the inner side of the escutcheon-plate and bearing against a transverse pin near the inner end of the sliding swiveled stem, said bell-crank being provided at the end of its horizontal arm with a beveled lip or catch adapted to engage with a suitably-located corresponding lip or catch, substantially as set forth.

8. The combination with the table or support mounted upon links and adapted to swing in a forward and upward direction, of cleats or wedges secured upon the under side of said table, spring-catches secured to the said cleats and having bolts extending through perforations in the latter, ratchets arranged to be engaged by said spring-catches, a suitably-located swiveled stem, and cords or chains connecting the latter with the bolts extending from the spring-catches, substantially as set forth.

9. The combination with the table supported upon links adapted to swing in a forward and upward direction, of a bell-crank catch adapted to lock said table in its lowered position, ratchets for sustaining the table at an elevation, spring-catches adapted to engage said ratchets, a sliding spring-actuated stem having one end swiveled in the vertical arm of the bell-crank catch, and flexible connections between the said sliding swiveled stem and the spring-catches, substantially as set forth.

10. The combination with the table mounted upon links and adapted to swing in a forward and upward direction, of the beveled or wedge-shaped cleats secured upon the under side of said table and having perforations therein, the spring-catches secured to said cleats and having bolts extending through the perforations therein, and ratchets suitably arranged to be engaged by the said spring-catches, substantially as set forth.

11. The combination with the table mounted upon links and adapted to swing in a forward and upward direction, of the beveled or wedge-shaped cleats secured upon the under side of said table and having perforations therein, the spring-catches secured to said cleats and having bolts extending through the perforations therein, ratchets suitably arranged to be engaged by the said spring-catches, a swiveled stem arranged intermediately between the latter and flexible connections between said stem and the bolts extending from the spring-catches through the perforations of the cleats, substantially as set forth.

12. In a combined desk and type-writer cabinet, the combination of the desk-top having a hinged flap, a table mounted upon links and adapted to be swung in an upward and forward direction, means for locking the desk-flap in position when closed, such means being normally inactive, a roller-curtain for the desk-top and means attached to the bottom strip of said roller-curtain for engaging and actuating said locking mechanism when the roller-curtain is lowered to lock the desk, substantially as set forth.

13. In a combined desk and type-writer cabinet, the combination of the hinged desk-flap, lever-catches connected pivotally therewith,

notches or recesses in the adjacent sides, springs arranged to hold said lever-catches normally out of engagement with said notches, a roller-curtain for the desk-top and means for operating the said lever-catches to lock the desk-flap when the roller-curtain of the desk-top is lowered, said means being attached to the bottom strip of said roller-curtain, substantially as set forth.

14. In a combined desk and type-writer cabinet, the combination of the hinged desk-flap, the lever-catches connected pivotally therewith, notches in the adjacent desk sides, springs arranged to hold said lever-catches normally out of engagement with said notches, slides mounted in the desk-flap to impinge upon said lever-catches and to force the latter against the tension of the springs, a roller-curtain for the desk-top and pins or dowels connected with said roller-curtain to operate said slides, substantially as set forth.

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

JOHN GRAMELSPACHER.

Witnesses:

VICTOR E. CLAYCOURT,

LOUIS P. JOSEPH.