(No Model.)

C. H. TYLER.

OFFICE DESK.

No. 287,068. Patented Oct. 23, 1883.

Fig. 1.

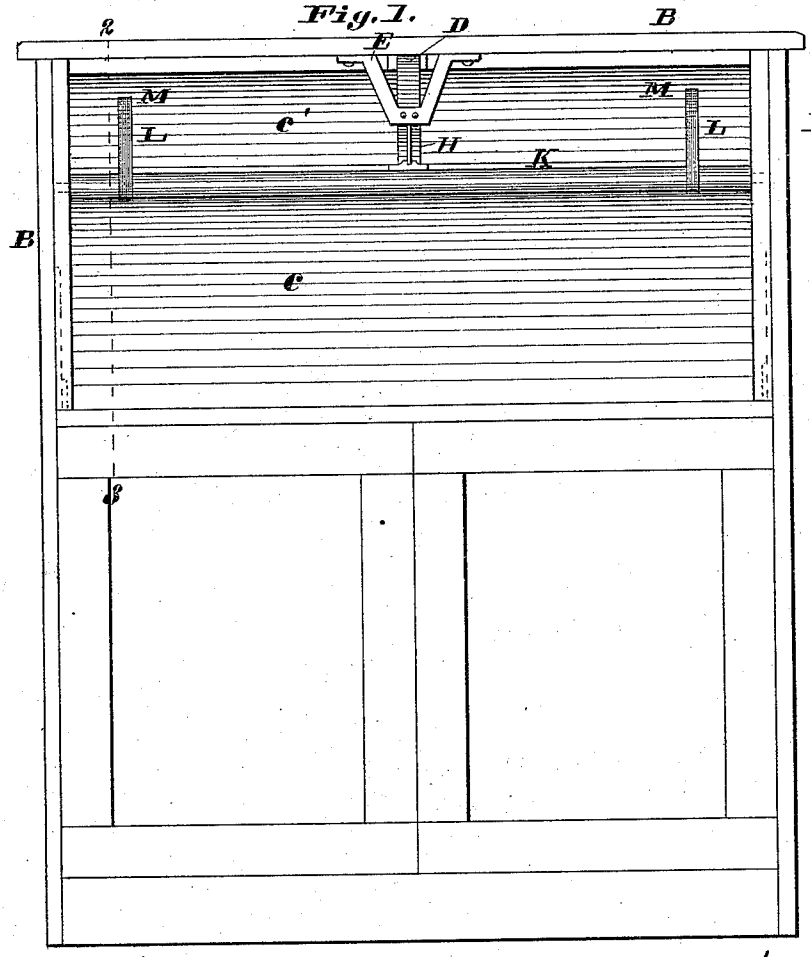


Fig. 4. Fig. 5

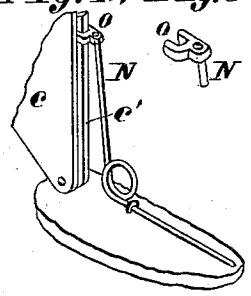


Fig. 6.

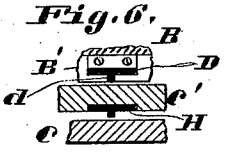


Fig. 7.

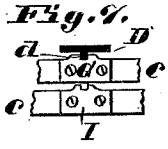


Fig. 2.

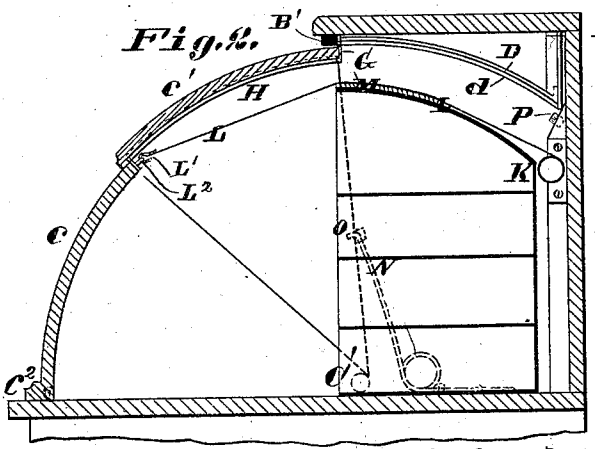


Fig. 10.

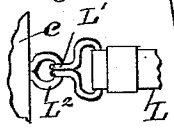
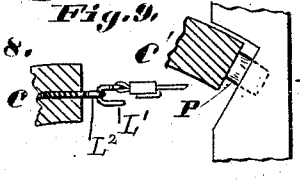


Fig. 3.

Fig. 9.

Fig. 8.



Attest

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UNITED STATES PATENT OFFICE.

CHARLES H. TYLER, OF ST. LOUIS, MISSOURI.

OFFICE-DESK.

SPECIFICATION forming part of Letters Patent No. 287,068, dated October 23, 1883.

Application filed May 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. TYLER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Office-Desks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to the class of office-desks known as "cylinder" desks, and applies to attachments to the drop-cover or cylinder, rendering the movements of the same easy.

The invention is intended more especially as an improvement on the office-desk for which Letters Patent were granted to me bearing date the 7th day of November, 1882; and it consists in springs and guides in connection with the drop-cover, as set forth.

Figure 1 is a rear view of a desk with part of the back and partitions removed to show my improvement. Fig. 2 is a vertical section of the device at line 2 3, Fig. 1, the cover being shown down, and Fig. 3 is a section at line 2 3, with the cover shown elevated or open. Figs. 4 and 5 are detail perspective views of the spring that pushes the cover forward. Fig. 6 is a detail section at 6 6, Fig. 3, looking forward. Fig. 7 is a rear view of the guide-plates and guide-bars. Fig. 8 is a sectional detail at line 2 3, (enlarged,) showing the attachment of the spring-belt to the lower section of the cover. Fig. 9 is an enlarged detail section at line 2' 3, showing the bearing of the upper section of the cover against the spring-cushion at the rear. Fig. 10 is a top view of that shown in Fig. 8.

My improvement is shown applied to a cover consisting of an under section, *c*, and an upper section, *c'*, the former retreating beneath the latter, and both retreating into the top B when the desk is opened. This construction of cover is described in my patent hereinbefore mentioned. The cover-sections are hinged to the desk at C'.

D is a guide-bar attached at front to the front bar, B', of the top, and attached at the rear end to the rear part of the desk by means of the bracket E or otherwise. The bar D has at the under side a rib, *d*, which enters a notch in the plate G, attached to the rear edge of the upper cover-section, *c'*, so as to form a guide to the section in opening and closing. (See Fig. 7.) The under section, *c*, is guided in a similar way by means of a rib, H, secured to the under side of the section *c'*, which enters and works in a notch in a plate, I, attached to the rear edge of the lower section, *c*. (See Figs. 6 and 7.) The sections *c c'* are provided with any suitable stops to limit their descent.

K is a roller containing a spiral spring, one end of which is connected to the roller, and the other end to a stationary arbor or box upon which the roller turns. No novelty is claimed in this construction of spring-roller, the same being in common use for window-curtains. On the other hand I do not confine myself to said form of spring, as equivalent devices might be used—for instance, a flat spring coiled in the manner of a clock-spring, which would thus take the place of not only the spring-roller K, but also of the tapes L, shown coiled upon the roller and passing over plates or pads M to the rear edge of the lower cover-section, *c*, to which they are connected by a hook, L', and eye L^2. (See Figs. 2, 3, and 8.) I prefer to make the tapes L of spring-brass, but not to confine myself to this material.

N is a spring, of which there may be one at each end of the desk. (See dotted lines in Fig. 1.) The spring N has a forked head, O, engaging the sector-shaped end of section *c'*, so as to push the section forward. The relative strength of the counterbalance spring or springs acting on the belts or tapes L and the springs N is such, taken in connection with the weight of the cover, that the cover will remain in any position in which it may be placed. Thus it may be drawn down or thrown up with the greatest ease. Of course I do not strictly confine my claim to the device in what I consider its most perfect form, as just described, for an approximation thereto would possess the essential features of the invention. It will be seen that the spring N tends constantly to press the section *c'* forward, so that from the open position, Fig. 3, the two sections always move forward together until the section *c'* reaches its forward position, and from this point the section *c* moves forward alone. Also, in opening the desk the section *c* moves upward by itself until its bead c^2 reaches the outer edge of the section *c'*, and then both sections are moved together until

they reach their upper position, Fig. 3. Thus there is no uncertain movement or jar. When the section *c'* reaches its upper position, Fig. 3, its rear edge impinges against cushion or cushions P, of rubber or other suitable material, to prevent jar. I prefer to make the spring that acts upon the belts L adjustable in force, so that it may be made to act as an equivalent to the weight of the cover and the spring N taken together, and thus act as an exact counterpoise, as before described.

I claim as new and of my invention—

1. In a desk, the combination of the table, a top to the table, open at the front side, a two-part cover, one part sliding under the other, and a spring counter-balance connected to the part which rests on the table and to the back of the top, as set forth.

2. In a cylinder-desk, the two-part cover *c c'*, hinged to the main part, counterbalance-spring secured to the lower section, and a spring to press forward the upper section, in combination with a suitable top, as set forth.

3. In a cylinder-desk, the combination of the main part, the upper and lower sections hinged to the main part, the upper section, *c'*, having notched rear plate, G, and guide-rib H, the lower section hinged to the sides of the top *c*, having notched rear plate, I, and a top having guide-rib *d*, the notched plates to slide on their respective ribs, as set forth.

4. In a cylinder-desk, the combination of a table, a top thereto, a spring-roller secured to the back of the top, a cover in two sections hinged to the sides of the top, to slide one under the other and both under the top, and counterbalance-spring tapes L, secured to the rear of the lower section and to the roller, as set forth.

CHARLES H. TYLER.

Witnesses:
SAML. KNIGHT,
TRUSTEN P. DYER.