

(No Model.)

2 Sheets—Sheet 1.

G. W. SMITH.
TIME LOCK FOR TOBACCO BOXES.

No. 580,736.

Patented Apr. 13, 1897.

Fig 1.

Fig 2.

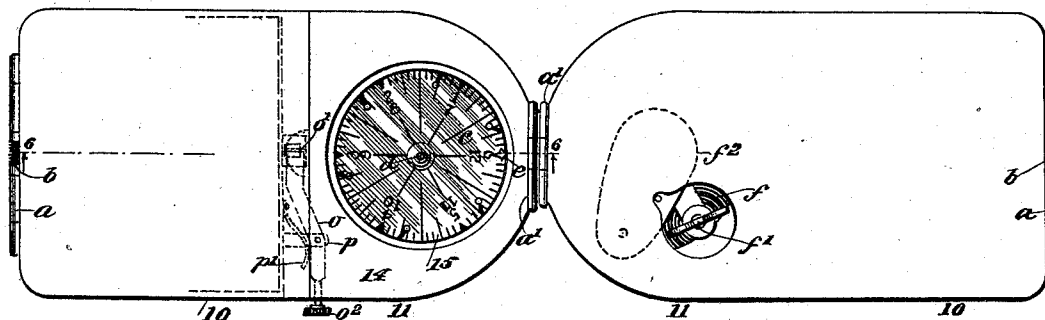


Fig 3.

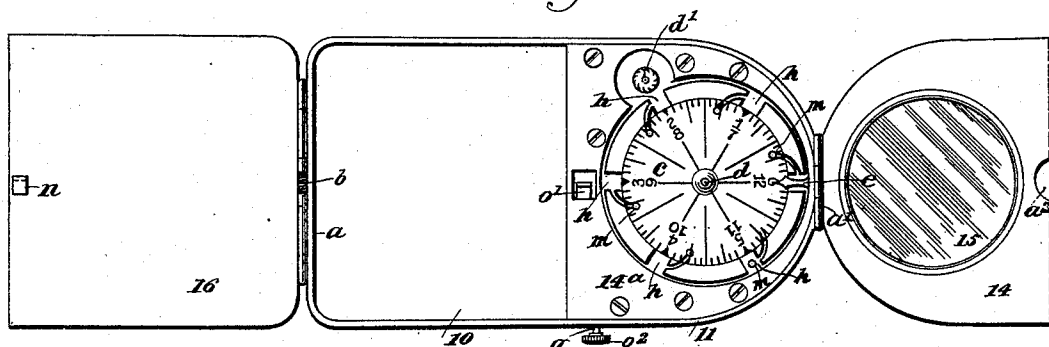


Fig 4.

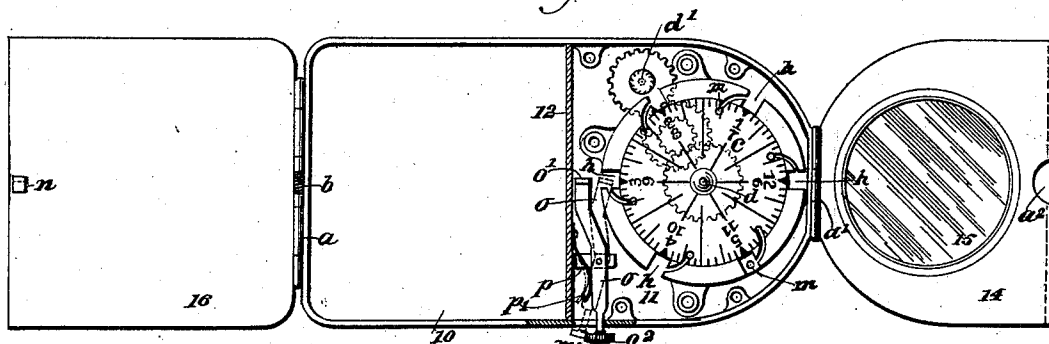
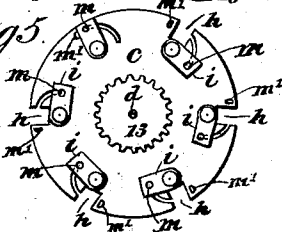


Fig 5.



WITNESSES:
Paul J. ...
Wm. ...

INVENTOR
G. W. Smith
BY
...
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GRANT W. SMITH, OF O'NEILL, NEBRASKA.

TIME-LOCK FOR TOBACCO-BOXES.

SPECIFICATION forming part of Letters Patent No. 580,736, dated April 13, 1897.

Application filed July 18, 1896. Serial No. 599,700. (No model.)

To all whom it may concern:

Be it known that I, GRANT W. SMITH, of Nebraska, have invented a new and Improved Time-Lock for Tobacco-Boxes, of which the following is a full, clear, and exact description.

This invention relates to novel mechanism for controlling the supply of chewing or smoking tobacco carried by the user of the weed, the object being to provide a portable receptacle for tobacco that is held closed during predetermined intervals of time by mechanism that releases the lid of the receptacle at the expiration of periodic time-limits, so as to permit the user to remove a supply of tobacco from said receptacle only when the box-lid is thus automatically released.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the novel tobacco-box closed and locked. Fig. 2 is a reverse plan view of the same. Fig. 3 represents the box-lid open and the glazed dial-cover similarly adjusted. Fig. 4 shows the box opened, the dial-cover swung back on its hinge, and an important feature of the improvement exposed by removal of the cover. Fig. 5 is a reverse plan view of a novel time-controlling dial removed from the box. Fig. 6 is an enlarged partly-sectional side view of the improved tobacco-box substantially on the line 6-6 in Fig. 1, showing the lid locked in full lines and released in dotted lines. Fig. 7 is a transverse sectional view substantially on the line 7-7 in Fig. 6. Fig. 8 is a transverse sectional view showing a slightly-altered construction of the lid-locking mechanism; and Fig. 9 is a transverse sectional view of the box-lid and supports for the modified locking device on the line 9-9 in Fig. 8, showing the construction of said device.

There is a receptacle provided, of any suitable material, which is preferably afforded an elongated rectangular form, as indicated in the drawings, the corners and edges at the bottom of the same being rounded to remove

sharp angles and adapt it for easy portage in the pocket of the person carrying the device.

The box is divided into two compartments 10 11 by a transverse partition 12, the compartment 10 being designed to hold tobacco of any kind used for chewing or smoking, while the other compartment contains time-clock gearing 13, adapted to control the release of the lid and cover that close the open sides of the two compartments.

An apertured lid 14 is hinged at one end of the compartment 11 and has a glazing 15 secured over the aperture in it, and below the lid 14 an apertured frame cap-plate 14^a is removably secured to the case by screws. A lid 16 is provided for the compartment 10, having a hinged connection at the end of the same, as shown at *a* in the drawings, and said hinge is provided with a "throw-up" spring *b*, that will cause the lid to assume open adjustment when it is free to do so.

The time-clock gearing 13 is of any approved construction adapted to drive the dial-plate *c* and note the lapse of hours and fractions thereof that are marked on its top face, the dial in this construction being secured on the cannon-post *d* of the gearing, below and opposite the aperture in the cap-plate 14^a, so as to receive correct rotative motion, the regular movement of the dial-plate being indicated by a fixed hand *e*. (Shown in Figs. 1 and 3.) The gearing 13 is driven by a coiled spring *f*, wound by turning its arbor *f'* in the usual way, said arbor being provided with a thumb-piece that is foldable in a recess in the back wall of the chamber 11, and said recess has a flat pivoted cover *f*², that will close the open recess.

The dial-plate *c* is suitably notched in its peripheral edge, as best shown at *h* in Figs. 4 and 5, said notches being each provided with a guard-plate *i*, that is pivoted on the lower side of the dial near one end of the guard-plate, so that each of the latter-mentioned pieces may be swung to open or close the notch to which it is adjacent.

Each of the cover-plates *i* is provided with an upright stud or pin *m*, which pins project from the guard-plates at points near their free ends, up through curved slots in the dial-plate *c*, so that by moving by hand any of the pins in its respective slot the attached guard-

plate may be rocked over or away from the notch *h* it is to guard.

From the lower side and near the free end of the lid 16 a latch-hook *n* depends, which hook has the sloped wall on its hook portion, faced toward an edge of the locking-bar *o*, that is within the case 11.

The bar *o* in one form of its construction is represented in Figs. 4, 6, and 7, comprising a metal strip of proper stability having a T-head *o'* and is pivoted on a projection *p* from the partition 12, near a side wall of the compartment 11, through a slot in which wall said bar projects and terminates in a thumb-piece *o''*. A spring *p'* is projected from the wall 12 and presses the end of the locking-bar *o*, having the T-head *o'*, away from the dial *c*.

The bar *o* being spring-pressed at its edge nearest the partition 12, so as to normally remove its head *o'* from the notched edge of the dial *c*, it will be evident that if any one of the notches *h* has its cover-plate *i* swung away therefrom, so as to leave it open, the head *o'* may be caused to enter the open notch when the rotative movement of the dial *c* locates the opened notch opposite the head, the vibration of the lever being manually effected.

It will be seen that the length of the T-head *o'* is sufficient to allow its upper member to engage with a notch in the edge of the dial-plate *c* and also impinge upon the ends of such cover-plates *i* as are swung over the notches they are to guard, so that the bar *o* can only vibrate away from the partition 12 when pressed into an open notch *h*.

The glazed lid 14 is sufficiently depressed at the edge which is adjacent to the partition 12 when closed to permit the free transverse edge of the lid 16 to lie level thereon when in folded condition, as shown in Fig. 6. The free transverse edges of the cover 14 and cap-plate 14^a are notched, as shown in Figs. 6 and 7, so as to avoid contact with the latch-hook *n* when the latter is caused to enter the compartment 11, the notch *a''* of the cover 14 being also shown in Figs. 3 and 4.

The folding movement of the lid 16 will cause the sloped face of the latch-hook *n* to bear upon the lower edge of the head *o'* on the locking-bar *o*, so that on vibrating the bar against the stress of its spring *p'* a disengagement of the hook and bar will be effected.

The spaces between the notches *h* represent periods of time, preferably equal in duration, and it will be seen that the interval between any two of said notches will represent the shortest time for a locked adjustment of the box-lid 16, the complete rotation of the notched dial *c* defining the longest period of time for a retention of the lid over the compartment 10 in a closed and secured condition.

The manner of using the novel tobacco-box is as follows: The user sets the controlling time mechanism for the lid 16 by closing a suitable number of notches *h*, the cover-plates *i* being moved over the notches to be closed by manipulation of the studs *m* where they

project through the time-indicating dial *c*, so that the free end *o'* of the locking-bar *o* can be pressed by the thumb-button *o''* into a notch *h* that has been left open. The compartment 10 is sealed and kept closed by folding its lid 16 over the closed lid 14, so that the latch-hook *n* will engage with the edge of the locking-bar *o* when the T-head *o'* thereon is in normal retracted position. Now it will be evident that if the gearing 13 is actuated by its spring, so as to correctly measure the lapse of time indicated by the dial *c*, when the open notch *h* is thus brought at a predetermined instant opposite the head *o'* of the locking-bar the latter may be caused to vibrate against the stress of its spring by manipulating its thumb-button and thus release the hook *n*, so that the lid 16 may be thrown open by the hinge-spring *b*.

It will be obvious that the user of the novel tobacco-box, if he depends solely on the contents of said box for the tobacco he chews or smokes, will be enabled to control the extent of such use of the weed by arranging the mechanism that has been described so that access to the interior of the compartment 10 can only be had at times previously determined by the tobacco-chewer, who desires to control his appetite therefor and resist inclination to an inordinate use of the same.

It is well known to habitual tobacco chewers and smokers that the use of the same increases involuntarily, so that the tobacco is chewed and smoked at more frequent intervals of time than would be if the user was caused to realize the excess of consumption by inability to satisfy the craving unchecked.

The improved tobacco-box is designed to enable an inordinate chewer or smoker of tobacco to limit use of the same by causing him to wait the lapse of a predetermined interval of time before he can take a fresh chew or fill his pipe, and by gradually increasing the length of time between such acts of indulgence the habit of tobacco chewing and smoking may be greatly restricted and cured in the course of time, as its effect on the system is gradually diminished.

A small pinion on the upright shaft *d'*, which has a thumb-piece exposed above the cover-plate 14^a, is meshed with the gearing 13, so as to enable the user of the improved tobacco-box to set any figure on the dial *c* opposite the hand *e* by a rotatable movement of the cannon-post *d* when such adjustment is desired.

In Fig. 8 of the drawings a slightly-altered construction of the device is shown. The locking-bar *s* for the device represented in Figs. 8 and 9 is held in an upright position by pivoting its lower end on an ear *s'*, that in this case projects from the transverse wall 12 of the compartment 11, a further support therefor being afforded by the laterally-extending rod *o*, that in complete form extends through a slot in a bracket-plate *p*, that projects from a side wall of the compartment,

as indicated by dotted lines in the figures mentioned.

On the side of the upright locking-bar *s* a latch-dog *u* is pivoted, the pivot engaging a limb *s*² of the dog that projects therefrom so as to lap upon the side of the bar, whereby the dog is supported to rock between the inner edge of the locking-bar and the edge of the dial-plate *c*, that is notched, as before explained, and has the cover-plates *i*, provided to guard said notches *h*.

The dog *u* is provided with a contractile spring *v*, that is connected to its lower end at *u*¹, and also to a projection *s*³ from the bar *s*, the pull of said spring being adapted to rock the toe of the dog *u* toward the edge of the dial *c* until checked by the impinge of a depending lug *u*² on the dog upon the adjacent edge of the upright locking-bar *s*.

In the operation of the modified form of the device the lid of the tobacco-holding compartment is retained in closed adjustment by the latch-hook *n* on the lid 16 during the rotatable movement of the dial *c* necessary to bring an open notch thereon opposite the toe of the dog *u*, so that the latter may be rocked into said open notch by movement of the rod *o*, and correspondingly rock the locking-bar *s* away from the engaged latch-hook *n*, so as to permit the spring-hinge of the lid 16 to elevate it, and thus expose the contents of the tobacco-holding compartment of the improved tobacco-box.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a device of the construction described, the combination with a box having two compartments therein, a hinged lid for each compartment, and a depending latch-hook on one lid adapted to enter a compartment when the lids are closed, of clock-gearing having a time-indicating and time-controlling peripherally-notched dial on a rotatable post of said gearing, and a locking-bar for the latch-hook, adapted to enter an open notch of the dial and thus release the latch-hook, and means for closing one or more of the notches in said dial, substantially as described.

2. In a device of the construction described, the combination with a box having two compartments, a hinged lid for each compartment, and a depending latch-hook on one lid adapted

to enter a compartment when the lids are closed, of clock-gearing, a time-indicating and time-controlling dial secured on the cannon-post of said gearing, which dial is serially notched on its periphery, pivoted guard-plates for the notches of the dial, and studs extending from said guard-plates through curved slots in the dial, whereby the guard-plates may be adjusted, substantially as described.

3. A tobacco-box having two sections, a lid for one section, a catch in the remaining section, the catch holding the lid closed, a notched disk turning in said remaining section and holding the catch except when the notches of the disk are opposite the catch, and clock mechanism for driving the disk, substantially as described.

4. The combination in a box, of a hinged lid, a catch holding the lid, a peripherally-notched disk juxtaposed to the catch and turning to periodically permit the catch to move into the notches of the disk, and clock mechanism for turning the disk, substantially as described.

5. The combination with a box having two departments and two lids, of a latch-hook fixed to one lid, a spring-pressed bar normally engaging the latch-hook and holding the lid thereof closed, a peripherally-notched disk located adjacent to the bar and normally holding the bar from movement, the bar being capable of moving when one of the notches of the disk is opposite the bar, and clock mechanism for turning the disk, substantially as described.

6. The combination with a box having a lid, of a catch holding the lid, a disk provided with notches, a cover-plate movable from and over each notch, and means for turning the disk, substantially as described.

7. The combination with a box having a lid, of a catch for holding the lid, a rotating disk having a notch therein and a curved slot adjacent to the notch, a cover-plate adjacent to the notch and moving over and from the same, a pin carried by the cover-plate and running in the curved slot, and means for turning the disk, substantially as described.

GRANT W. SMITH.

Witnesses:

LAURA P. SMITH,
I. M. LYMAN.