2 Sheets—Sheet 1.

W. H. TAYLOR.

Post-Office Box.

No. 199,331. **Patented Jan. 15, 1878.**

Fig 1.

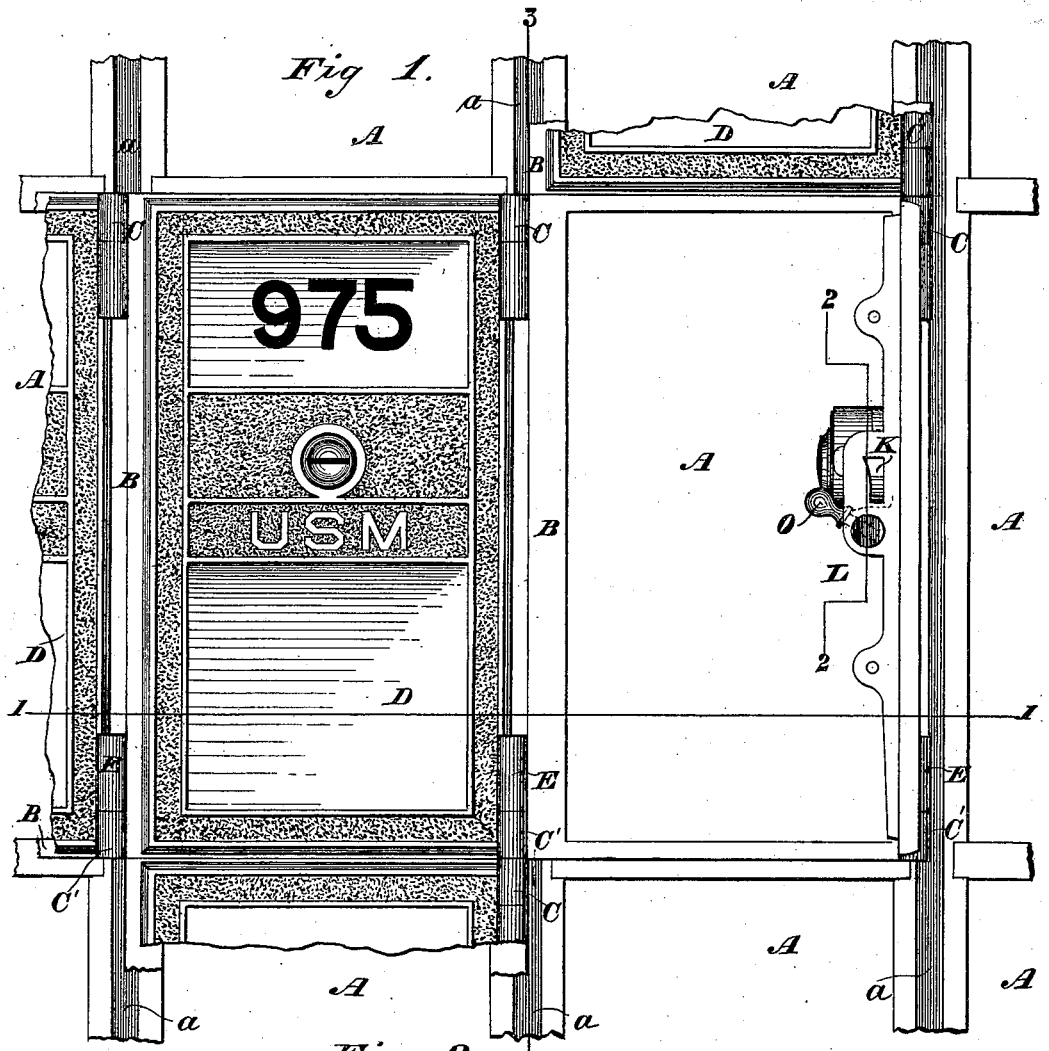
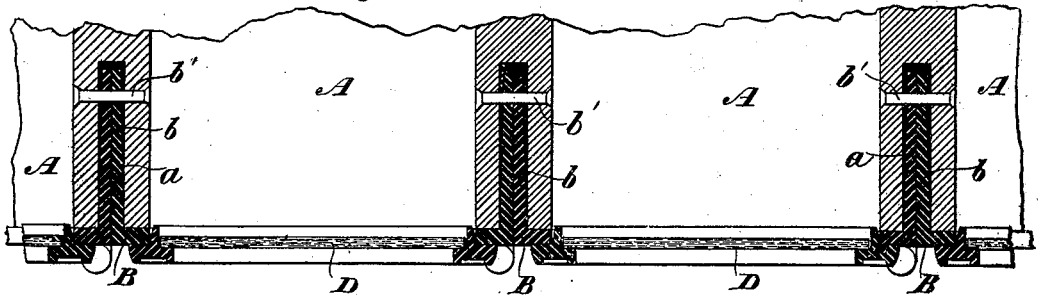


Fig 2.



WITNESSES

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Baldwin, Hopkins & Peyton.

2 Sheets—Sheet 2.

W. H. TAYLOR.

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Fig 3.

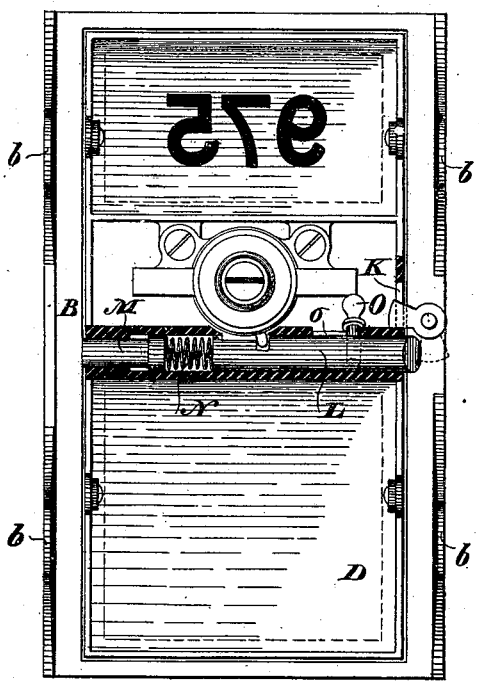


Fig 4.

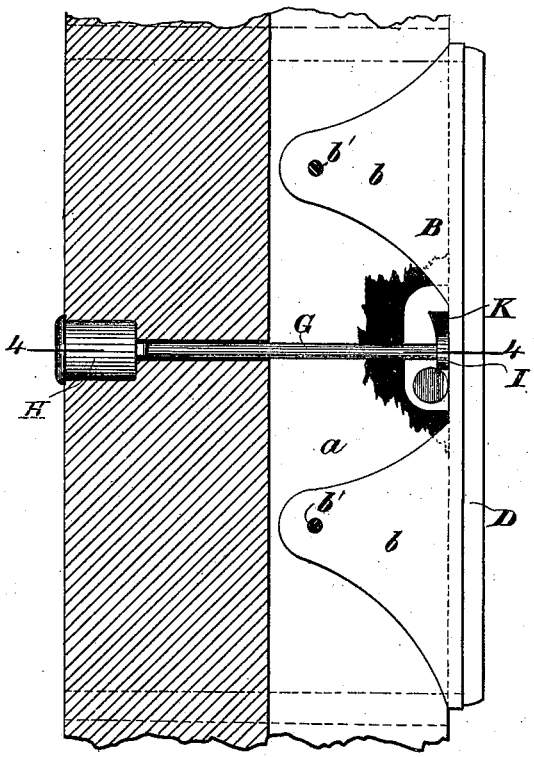


Fig 6.

Fig 5.

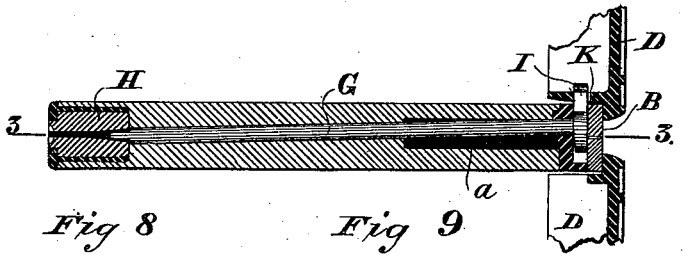


Fig 7

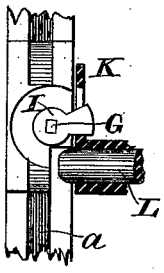
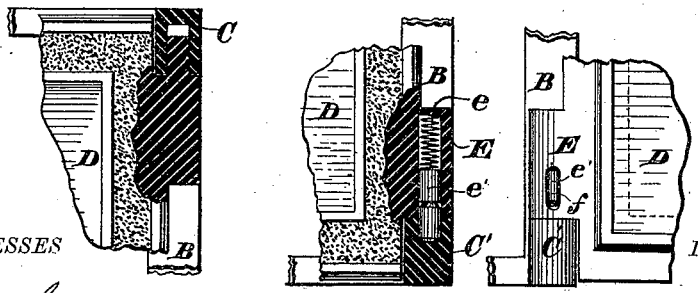


Fig 8

Fig 9

Fig 10



WITNESSES

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UNITED STATES PATENT OFFICE.

WARREN H. TAYLOR, OF STAMFORD, CONNECTICUT, ASSIGNOR TO THE YALE LOCK MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN POST-OFFICE BOXES.

Specification forming part of Letters Patent No. **199,331**, dated January 15, 1878; application filed November 7, 1877.

To all whom it may concern:

Be it known that I, WARREN H. TAYLOR, of Stamford, in the county of Fairfield and State of Connecticut, have invented certain Improvements in Post-Office Lock-Boxes, of which the following is a specification:

My invention relates to post-office lock-boxes provided with metallic glazed fronts, and controllable as to locking and unlocking from the rear, so as to prevent, if desired, the opening of the door by the key-holder from the front.

My improvements in this class of post-office lock-boxes relate particularly, first, to a mode of attaching the frames to the wood-work; second, to a mode of either locking or unlocking the doors from the rear; and, third, to a mode of causing the automatic opening of the door after it has been unlocked either from the front or rear.

These improvements I will now proceed to describe in detail by reference to the accompanying drawings, in which—

Figure 1 is a front elevation, showing two complete post-office-box fronts and the adjoining receptacles or boxes, some shown with portions of fronts in them, and others with the fronts or frames left off in order to illustrate more clearly the construction of the wooden boxes. One of the two complete boxes is shown with its door shut, and the other with its door half-way open. Fig. 2 is a horizontal transverse section of the same on the line 1 1 of Fig. 1; Fig. 3, a view of the inner side of the door and frame, partly in section, through the bolt-casing on the line 2 2 of Fig. 1. Fig. 4 is a vertical transverse section on the line 3 3 of Figs. 1 and 5. Fig. 5 is a horizontal section on the line 4 4 of Fig. 4; Fig. 6, a view, in elevation, of the inner edge of the vertical partition and the key-barrel set therein. Fig. 7 is a view of the front edge of the vertical partition, showing the locking and unlocking cam in its relation to the bolt and locking-slot; Fig. 8, a view, partly in elevation and partly in section, of the upper hinge of the doors; Fig. 9, a similar view of the lower hinge; Fig. 10, a view of the same as seen from the inner side of the door when it is swung open.

A, Figs. 1 and 2, indicates the wooden boxes, the vertical partitions of which are thicker than the top and bottom partitions, and are provided with slots *a* in front, which may be continuous, or may consist simply of separate grooves or pockets at the proper points. These slots can be cheaply and conveniently formed in the process of manufacture, and are for the purpose of receiving the ears or rearwardly-projecting lugs *b* of the cast-metal door-frames B. These frames are formed so that their openings correspond exactly to the interior dimensions of the boxes, and of such length and width that when adjusted in position with their lugs in the vertical partition slots, and their faces flush at all points with the interior walls of the boxes, they will extend on the sides and ends to the centers of the partitions, and can then be secured in place by rivets *b'*, passing through the vertical partitions and lugs, as shown in Figs. 2 and 4, where a single rivet unites the lugs of two adjoining frames, and fastens both frames to the wood-work.

This plan of attaching the metallic frames to the wood-work of the boxes by means of grooves in the vertical partitions gives the boxes the advantage of a continuous metallic frontage secured by the patented invention of Linus Yale, Jr.; and at the same time it constitutes a substantial improvement upon his invention, inasmuch as the ears are flush with the external edges of the frames, and are thus removed from the inner walls of the boxes, where they have heretofore formed inconvenient protruding obstructions to the deposition and delivery of mail-matter, and leaves the interiors of the boxes perfectly smooth and unobstructed at all points.

It is obvious that the grooves might be formed in the horizontal partitions instead of in the vertical; but it is preferable to form them in the latter, and also to form the lugs on the sides instead of on the tops and bottoms of the frames, as I have done.

Referring to my mode of hinging the doors to the frames, I cast ordinary hinge-knuckles C C' on my frames, and bore pintle-sockets in them, one of which sockets (preferably the lower one) should not extend entirely through the knuckle.

I form the upper pintle of my door D in the usual manner; but the lower one I make de-

tachable, as shown in Figs. 9 and 10, where E indicates the pintle-socket, into which I insert the coil-spring *e* and afterward the pintle *e'*.

In order to hinge the door to its frame, the upper pintle is inserted in its knuckle-socket. The lower pintle is then pressed upward in its door-socket, so as to pass the top of the lower knuckle, and, when moved in coincidence therewith, it will be forced down into its knuckle-socket by the coil-spring.

To enable me to unhinge the door, I provide a slot, *f*, in the inside of the door-hinge, entering the pintle-socket, and partly exposing the loose pintle. Through this slot I can insert a sharp-pointed instrument and raise the pintle out of its knuckle-socket, when the door can be unhinged.

Referring to my mode of either locking or unlocking the door from the rear, I bore holes horizontally through the vertical partitions about on a plane with the lock-bolt sockets, through which I pass rods G, attached at their rear ends to key-barrels H, and carrying on their front ends each a cam, I.

In a flange or rib on each door, near the outer end of the lock-bolt, I provide a slot, K, which slot and the end of the lock-bolt are so arranged with reference to the cam I that when the door is shut and the rod G, by means of a key or otherwise from the rear, is turned to the left, the cam will enter the slot K, and serve as a latch to fasten the door, which cannot then be opened from the front. When the rod is turned to the right by the same means the cam will strike against the end of the lock-bolt, and cause its retraction and permit the door to open. The cam thus acts alternately as a latch for fastening and a cam for unfastening the door.

Referring to my mode of causing the automatic opening of the door after it has been unlocked either from the front or rear, I cast on the inner face of the door a transverse projection to serve as a casing for the lock-bolt L and the heel-pin M, and the intermediate coil-spring N. In order to enter these parts in place, I first bore a hole lengthwise through the projection of the diameter of the heel-pin. I then counterbore it from its front end to the diameter of the lock-bolt, which I make larger than the heel-pin. I then insert the heel-pin provided with a cap, as shown in Fig. 3, so as to extend a little beyond its casing. Next I insert the coil-spring, and next the bolt, which latter I secure in place by means of a small pin or thumb-piece, O, passing through the slot *o*. These parts being thus disposed, when the door is closed the projecting end of the heel-pin will strike against the vertical partition and be driven inward. The coil-spring will thus be contracted, and, when the door is unlocked, either from front or rear, will press the heel-pin against the partition, and, by reaction, cause the door to fly open.

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

1. In a post-office lock-box, the combination of a yielding heel-pin, a bolt, and an interposed spring for causing the door to fly open when unfastened, substantially as described.

2. In a post-office lock-box, the combination of a rod and cam, so constructed and arranged with reference to a bolt and slot on the door that when turned from the rear in one direction the cam will enter the slot and fasten the door, and when turned in the other direction it will engage with the bolt and retract it and unlock the door, substantially as described.

3. A metallic frame for a post-office lock-box, having its fastening-flanges flush with its external edges, substantially as described.

4. In a post-office lock-box, the combination of two adjoining metallic door-frames, having lugs flush with their external edges, a partition provided with a central slot for receiving the lugs, and a pin passing through the partition and lugs, and uniting the frames, substantially as described.

5. In a post-office lock-box, a complete four-sided metallic door-frame, of one piece of metal, provided with fastening-lugs that are removed from and not flush with the inside edges of the frame, in combination with the centrally-slotted partitions for receiving the lugs, so as to conceal the latter and leave the interior walls of the box smooth and unobstructed, substantially as described.

In testimony whereof I have hereunto subscribed my name.

WARREN H. TAYLOR.

Witnesses:
ELIAS D. OGDEN, Jr.,
CHAS. E. VAIL.