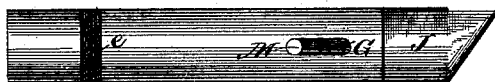
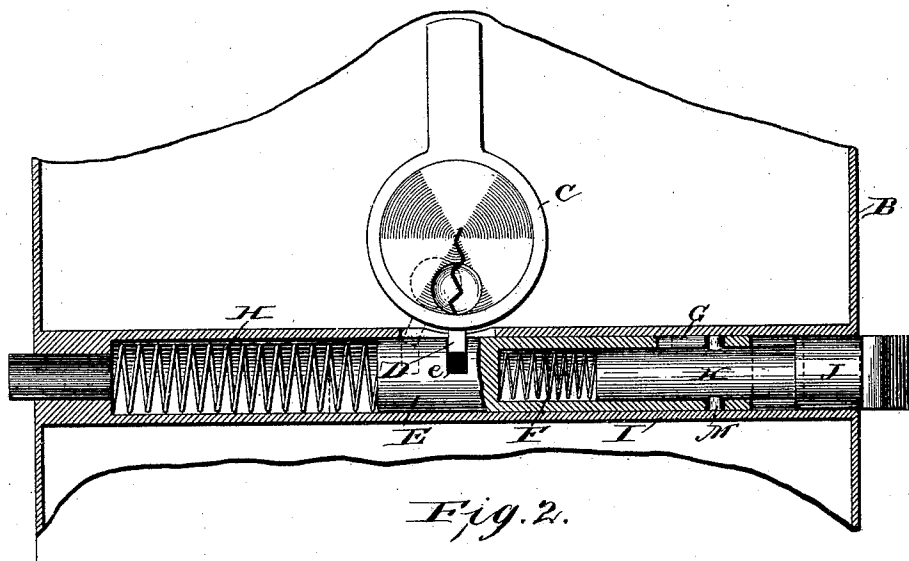
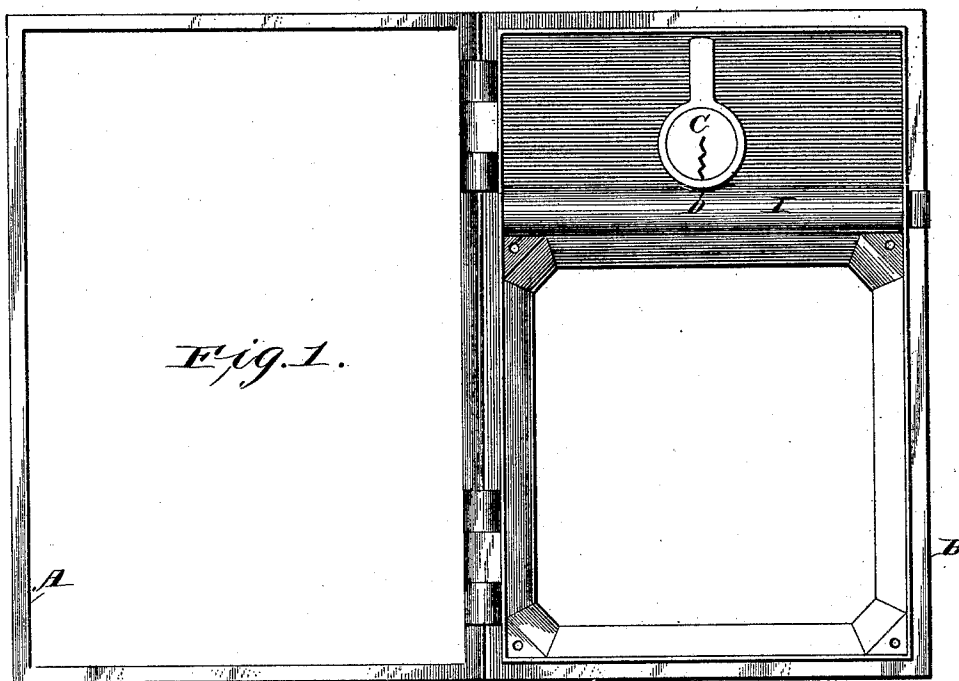


(No Model.)

W. H. TAYLOR.
LATCH BOLT.

No. 467,564.

Patented Jan. 26, 1892.



Witnesses
Louis G. Julihn.
C. P. Lowell.

Fig. 3.

Inventor
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by
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Attorneys

UNITED STATES PATENT OFFICE.

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

LATCH-BOLT.

SPECIFICATION forming part of Letters Patent No. 467,564, dated January 26, 1892.

Application filed January 12, 1891. Serial No. 377,520. (No model.)

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 new and useful Improvements in Anti-Friction Latch-Bolts, of which the following is a specification, reference being had to the accompanying drawings.

My invention is particularly well adapted for doors of post-office lock-boxes.

The object of my present invention is to provide a latch-bolt which, while certain in operation, shall be easily retracted by shutting the door, so as to reduce the friction of that operation upon the forward end of the bolt to the minimum. To accomplish this object, I form my bolt in two parts, the latch part sliding into the main part, which latter is operated directly by the lock. The latch part is actuated by a separate spring, which, as its only duty is to throw forward that part, may be very weak, so that very little power will be required to overcome it. The main part of the bolt, operated by the lock, is thrown by the usual stiff spring, and this main part and the latch part are so connected that when the lock operates the main part the latch will be retracted. Consequently where this construction is employed even if the spring which actuates the main bolt should be broken the lock would still be operative, because the latch part would be thrown by its own spring and the main part could be thrown by the key, so that the key could be withdrawn.

In the accompanying drawings, illustrating my invention, Figure 1 is a view of a post-office-box door-frame and door, the door being shown open. Fig. 2 is a view, on a larger scale, of the inside of a post-office lock-box door, showing the bolt mechanism partly in section, so as to exhibit the interior construction and arrangement of parts. Fig. 3 is a view of the two parts of the latch-bolt detached from the other mechanism, but connected together.

Referring to the letters upon the drawings, A indicates a door-frame, and B a door hinged thereto suitable to form an ordinary metallic glazed front for a post-office box.

C indicates the usual Yale tumbler-lock employed on such doors, its cylinder provided with a wing D for engaging with the main part of the lock-bolt to operate it.

E indicates the main part of my improved lock-bolt, with which the wing D engages by a notch *e* or in any suitable manner. The forward end of this part is shown as hollow to receive a coiled spring F and has a longitudinal pin-slot G. At the rear end of this main part is the usual strong coiled spring H for automatically casting it, the spring and the entire bolt being carried in a hollow cross-piece I of the door, as usual.

J indicates the latch part of the bolt, the shank K of which enters the hollow end of the main part of the bolt, where is placed a light coiled spring F, which tends to throw the latch part outward.

M is a pin projecting from the latch part and working in the pin-slot G and serving as a guide and stop in the usual manner to limit the motion of the latch part and to prevent it from coming out of the hollow main part. Ordinarily the parts of this bolt will occupy the relative position shown in Fig. 2; but when the door is being closed the latch part will be retracted, as indicated in Fig. 3. The key of the lock will of course retract both parts of the bolt, and the spring H will operate to cast both parts of the bolt into the locked position; but when in this position the latch part will yield by the compression of the small spring F without affecting the spring H, so that the door can be easily shut.

I thus produce a simple latch-bolt that will operate with certainty and with greater ease than the ordinary latch-bolt, and consequently with less friction and wear.

What I claim is—

The combination, with a lock adapted to

carry a sliding bolt, of a hollow main bolt E, with which the wing D engages to throw the bolt, said bolt being provided with the usual coiled spring H at its rear, a small coiled
5 spring F within its hollow forward part, and a latch part J, having a guide-pin M, working in the pin-slot G of the main part of the bolt, whereby the latch part J may be operated by shutting a door upon which the lock

is applied without operating the main part of the bolt, substantially as set forth.

In testimony of all which I have hereunto subscribed my name.

WARREN H. TAYLOR.

Witnesses:

SCHUYLER MERRITT,
GEO. E. WHITE.