

No. 846,231.

PATENTED MAR. 5, 1907.

T. S. MORTON.

LOCK.

APPLICATION FILED OCT. 13, 1905.

Fig. 1.

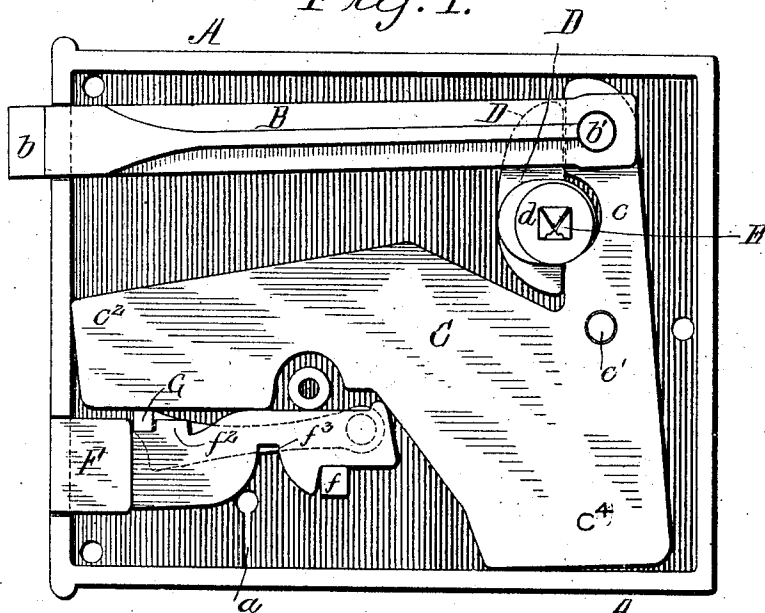
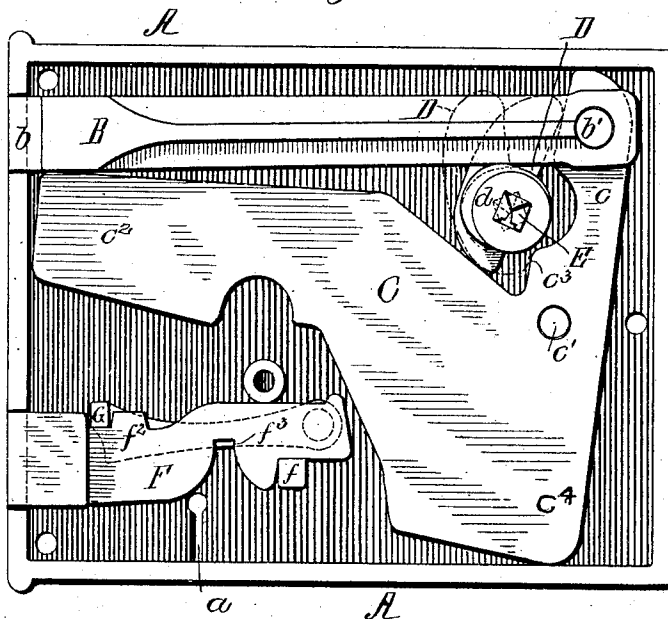


Fig. 2.



WITNESSES:

Samuel E. Wade
Amos W. Hart

INVENTOR

THOMAS S. MORTON.

BY *Muir & Co.*

ATTORNEYS

UNITED STATES PATENT OFFICE.

THOMAS SAMUEL MORTON, OF QUINCY, ILLINOIS.

LOCK.

No. 846,231.

Specification of Letters Patent.

Patented March 5, 1907.

Application filed October 13, 1905. Serial No. 282,572.

To all whom it may concern:

Be it known that I, THOMAS SAMUEL MORTON, a citizen of the United States, and a resident of Quincy, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Locks, of which the following is a specification.

My invention is an improvement in the class of locks in which springs are dispensed with as means for actuating a latch or locking bolt, the normal locking position of the latch being maintained by gravity of a pivoted member with which it is operatively connected.

The details of construction, arrangement, and operation are as hereinafter described, and illustrated in the accompanying drawing, in which—

Figure 1 is a face view of my improved lock, the cover or side being detached and the latch shown projected in normal position. Fig. 2 is a similar view, but showing the latch retracted.

The body or casing A of the lock may be constructed in the usual manner. The latch B is constructed with a beveled end *b* and arranged to slide in the upper portion of the casing A, its inner end being pivoted at *b'* to the vertical arm *c* of a gravity member C, which is pivoted on a stud *c'*. This member C is approximately T-shaped, the longer arm *c*² lying in the central portion of the casing A and extending nearly to the front end of the same. It will be seen that by this form and arrangement of the pivot near the head of the member it operates as a gravity-lever and normally projects the sliding latch B from the casing A, as shown in Fig. 1. The member C is turned on the pivot *c'* for withdrawing the latch B by means of a double cam D, the same being provided with a hub *d*, through which the knob spindle or shaft E passes. The cam D is formed by the arms projecting radially in opposite directions from the hub *d*, the longer arm projecting upward and working normally in contact

with the vertical arm *c* of the gravity member C, while the shorter arm projects downward and engages the arm *c* at a point nearer the pivot *c'*. It will be seen that by rotating the cam D in one direction the longer arm or cam member will bear against the arm *c* of the gravity member and force the same back into the position indicated in Fig. 2, so that the latch B is completely retracted, and upon rotating the cam D in the opposite direction it will assume the position indicated by dotted lines, Fig. 2, in which the shorter or lower arm works in contact with the arm *c* of the gravity member at a point *c*³.

The gravity member C is extended below its pivot *c'* and below the plane of the locking-bolt F. Practical test has demonstrated that this construction and arrangement of the member C prevents accidental shifting of the latch B and unlocking of the door when the car or coach lurches. The sliding bolt F, which is arranged in front of the part *c*⁴ of the gravity member, has a notch *f*³ to receive the ward of a key, and on the upper side it is provided with a lug *f*², which separates two notches adapted to receive the free end or head of a locking device G, that is pivoted to the casing. The rear or inner end of the bolt rests and slides upon a stud *f*. The laterally-extended arm *c*² of the gravity member C rests normally upon the locking device G, so as to hold it securely engaged with the locking-bolt.

What I claim is—

The improved lock comprising a casing, a sliding latch, and the gravity member C made approximately T shape and pivoted in the middle of its head and below the pivotal connection of the same with said latch, its pendent portion extending below the pivot and below the plane of the lateral arm *c*², as shown and described.

THOMAS SAMUEL MORTON.

Witnesses:

J. I. FOREMAN,
W. A. BRADNEY.