No. 885,176. PATENTED APR. 21, 1908.

F. P. PFLEGHAR.

COMBINED LOCK AND LATCH FOR VEHICLE DOORS.

APPLICATION FILED DEC. 23, 1907.

Fig. 1.

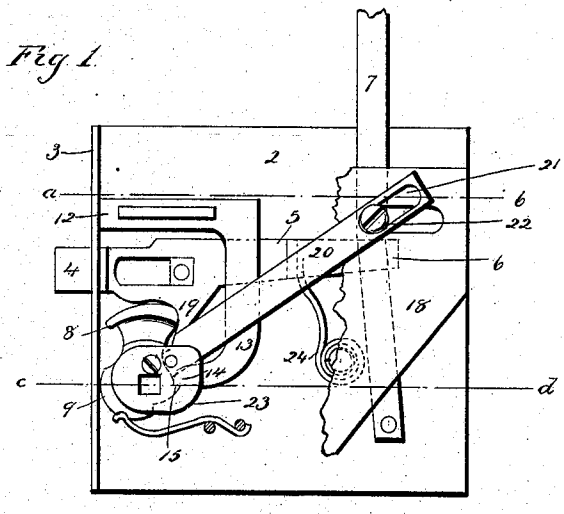


Fig. 2

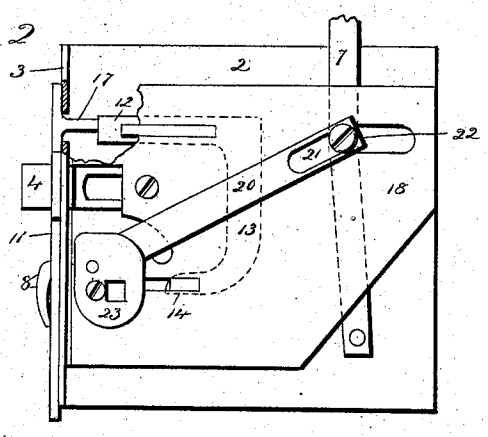


Fig. 3

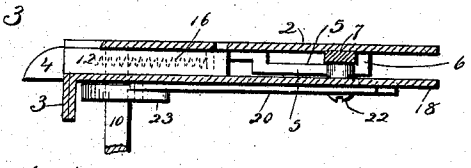
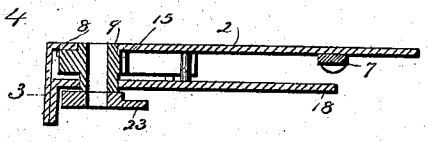


Fig. 4



Witnesses:
C. J. Reed
C. L. Reed

Frank P. Pfleghar
Inventor
by Seymour & Earle
Attys

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK P. PFLEGHAR, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE ENGLISH & MERSICK CO., OF NEW HAVEN, CONNECTICUT, A CORPORATION.

COMBINED LOCK AND LATCH FOR VEHICLE-DOORS.

No. 885,176. Specification of Letters Patent. Patented April 21, 1908.

Application filed December 23, 1907. Serial No. 407,719.

To all whom it may concern:

Be it known that I, FRANK P. PFLEGHAR, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in a Combined Lock and Latch for Vehicle-Doors; and I do hereby declare the following, when taken in connection with the accompanying drawings and the figures of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 an inside view of a combined lock and latch for vehicle doors constructed in accordance with my invention, a portion of the cap plate being broken away, the locking bolt being shown in the retired position. Fig. 2 a similar view showing the parts when the door is closed and the locking bolt thrown. Fig. 3 a sectional view on line *a*—*b* of Fig. 1. Fig. 4 a sectional view on line *c*—*d* of Fig. 1.

This invention relates to an improvement in combined lock and latch for vehicle doors, and particularly for motor vehicle doors where it is desired to not only latch but lock the door. In the usual arrangement of latches and locks of this character the latch is operated on the inside of the door by a vertically arranged lever that moves back and forth to disengage the latch, while the lock mechanism is turned by a handle arranged on opposite sides of the door so that the lock may be opened from either the inside or the outside.

The object of this invention is to avoid the necessity of a separate handle for the lock mechanism inside the door, and to provide means for operating both the lock and the latch from a single lever; and the invention consists in the construction hereinafter described and particularly recited in the claims.

In illustrating my invention I have shown a lock of usual construction adapted to be applied to a vehicle door and comprising a plate 2 having an outwardly turned flange 3 through which a latch bolt 4 extends the bolt being provided with a rearwardly extending tail 5 having a finger 6 which is engaged by an operating lever handle 7 which is pivoted to the plate 2 near its lower edge, and extends upward through the top of the door where it is provided with a suitable handle for operation, the bolt being normally thrown outward by the usual spring 24. Below the latch is a rotatable lock bolt 8 having a hub 9 which receives a square spindle 10 of an operating handle, not shown, but which is arranged on the outside of the door, the bolt 8 when thrown passing through the flange 3 so as to engage with a striking plate 11 in the usual manner. The hub is cam shaped and co-acts with a downwardly extending arm 19 on the latch bolt 4 so that turning the handle on the outside of the door will retire the latch bolt.

Above the latch bolt is a safety slide 12 having a downwardly extending arm 13 with a finger 14 adapted to project into the path of a shoulder 15 on the hub 9 of the locking bolt. This safety slide 12 is normally held in its outward position by a spiral spring 16 and is adapted to be retired by a lug 17 on the strike plate 11. When in its outward position the finger 14 stands in the path of the shoulder 15 on the locking bolt and cannot be thrown when the door is open; but when the door is closed the lug 17 forces the safety slide rearward so that its finger 14 is out of the path of the shoulder 15 permitting the door to be turned to its locked position. The parts thus described are of substantially usual construction and held in place by a cap bolt 18. To open the door the locking bolt must be thrown back and then the latch bolt retired, and in the usual manner a handle must be provided on the inner end of the spindle 10 so that it can be turned from the inside or else it is necessary to reach outside to first throw the locking bolt. To avoid this difficulty I attach a plate 23 to the hub 9 and pivot a link 20 thereto, which link is coupled to the operating lever 7, the link having a clearance slot 21 through which a connecting screw 22 passes so that the operating lever 7 may be moved independently of the link 20 to operate the latch bolt when the locking bolt is in its retired position.

When the locking bolt is thrown to its locked position, as shown in Fig. 2 of the drawings, it moves the link 20 so that the outer end of the slot is in close engagement with the screw 22. When it is desired to open the door from the inside after it has been locked as described, it is only necessary to remove the operating lever 7 rearward which movement rocks the hub 9 so as to retire the locking bolt at the same time the le-

ver engages with the inner end of the latch bolt in the usual manner so that the latch is also retired. Thus by a single operation of the operating lever 7 the door is not only unlocked, but also unlatched so that it can be opened, both operations being performed by a single movement of the operating lever 7. While for convenience I have shown my invention as applied to a combined lock and latch of one known form, it is apparent that it might be applied to other forms of combined locks and latches for vehicle doors.

I claim:—

1. In a combined lock and latch for vehicle doors, the combination with the locking bolt and a latch, an operating lever in engagement with said latch, and connections between the locking bolt and the operating lever, substantially as described.

2. In a combined lock and latch for vehicle doors, the combination with the latch bolt and locking bolt, of an operating lever in engagement with said latch, and a link pivotally connected with said locking bolt and connected with said operating lever, substantially as described.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

F. P. PFLEGHAR.

Witnesses:
MAE D. CONATY,
FRANCES I. MARTIN.